EAGLE TUGS

THE POWER TO MOVE YOU

Parts and Service Manual

Vehicle Types: USATS

Engine Type: Isuzu Diesel 4JG1 Engine Models

QA028 REV03 11.18.13

This page was intentionally left blank

INTRODUCTION

From everyone at Eagle Tugs, we would like to say Thank You for purchasing an Eagle USATS series tow tractor. We take a lot of pride in the quality of the products that we build, as well as our continued customer service. Our goal is to build a long term relationship with our customers. We want you, the customer, to be 100% satisfied with your Eagle experience. To us, this means that your Eagle USATS series tractor is functionally superior to any other products you have used. This also means that your Eagle product is continually supported in a professional, timely manner.

PURPOSE & USE OF THIS MANUAL

This manual is designed as a reference guide to make the reader more familiar with the components of the Eagle USATS tow tractor models. This manual includes part numbers and descriptions to assist the reader in ordering component spare/service parts. The manual also outlines the Scheduled Maintenance Intervals recommended by Eagle in order to keep your vehicle running properly. In this manual you will also find the Eagle Standard Warranty on all of the USATS series tow tractors. However, for more detailed information on the Eagle Warranty and procedure, as well as information pertaining to the safe operation of your Eagle product, please see the Eagle Operations Manual that was also included with your vehicle.

TECHNICAL ASSISTANCE

When addressing a repair procedure or operational problem, please remember that Eagle technical support is only a phone call away. Eagle technicians are available to assist you in vehicle diagnostics and recommended repair procedures. We encourage you to use this service to reduce machine down-time and to gain a better understanding of proper repair procedures.

ORDERING SPARE/SERVICE PARTS

Eagle inventories most of the component parts found in its USAT series tow tractors, and most spare/service parts can be shipped the same day the order is received. Parts orders need to be received at Eagle by 12:00 pm (Noon) EST in order for the parts to be shipped that same day. Parts ordered after 12:00 pm EST will most likely be shipped the following day.

CONTACT INFORMATION

Eagle Corporate Office
26111 Northline Rd
Taylor, MI 48180
(800) 671-0431
www.eagletugs.com

Customer Service
customerservice@eagletugs.com
(734) 442-1000 -- (800) 671-0431

Parts & Service
parts@eagletugs.com
(734) 442-1000 -- (800) 671-0431

Technical Support
support@eagletugs.com
(734) 442-1000 -- (800) 671-0431

TABLE OF CONTENTS

INTRODUCTION 3

PURPOSE & USE OF THIS MANUAL 3
TECHNICAL ASSISTANCE 3
ORDERING SPARE/SERVICE PARTS 3
CONTACT INFORMATION 3

WARRANTY 6

VEHICLE ID INFORMATION 6
WARRANTY REGISTRATION 6
WARRANTY INFORMATION 7
AUTHORIZED ISUZU DISTRIBUTOR MAP US AND CANADA 8
AUTHORIZED ISUZU DISTRIBUTOR DIRECTORY 9

SAFETY INFORMATION 12

ISUZU SERVICE & PARTS BULLETIN (J-SERIES ENGINE OIL FILL PROCEDURES) 12
IMPORTANT SAFETY NOTICE AND WARNING 14

SERVICE PARTS ILLUSTRATIONS & DETAIL 15

IDENTIFICATION KEY 15
POWER TRAIN 16
Engine Dress – Isuzu Diesel 16
Engine Dress— Isuzu Diesel—Detail 17
COOLING SYSTEM 18
Cooling System—Diesel Engine 18
Cooling System-Transmission 18
DRIVELINE 22
Drive Shaft Assembly-Front 22
Drive Shaft Assembly-Rear 23
TRANSMISSION 24
Transaxle Mounting & Misc. Parts 24
Transaxle Mounting & Misc. Parts—Detail 25
Transaxle Case Extension & Retainer 26
Transaxle Case Extension & Retainer - Detail 27
AXLES 28
Axle Assembly—Front Drive (4WD) 28
Axle Assembly—Rear 29
Axle Assembly Breakdown—Front Drive (4WD) 30
Axle Assembly Breakdown—Front Drive –Detail 31
Axle Assembly Breakdown—Front Drive—Detail 33
Axle Assembly Breakdown—Rear Drive 34
Axle Assembly Breakdown—Rear Drive—Detail 35

TABLE OF CONTENTS

BRAKES 36
Brake Assembly - Rear 36
Brake Assembly - Rear—Detail 37
Brake Actuator Assembly 39
Brake System Hydraulic 40
Brake System Hydraulic—Detail 41
Parking Brake Actuator Assembly 42
Parking Brake Actuator Assembly—Detail 43
HYDRAULIC SYSTEM 45
Hydraulic Assist 45
STEERING SYSTEM 46
Steering System Breakdown 46
Steering System Breakdown—Detail 47
AIR CLEANER, FUEL SYSTEM & EXHAUST 48
Air Cleaner Assembly – Diesel 48
Air Cleaner Sub-Assembly 49
Fuel System—Diesel 50
Exhaust System—Diesel 51
OPERATOR COMPARTMENT 52
Accelerator Pedal Assembly 52
Transmission Control 53
Instrument Panel 54
Instrument Panel—Detail 55
LIGHTS & ELECTRIAL 56
Electrical Board 56
Horn Assembly 57
Headlight & Taillight Assembly 59
Wiring Harness 60
Wiring Schematic 61
WHEELS & TIRES 62
Wheels & Tires 62
OTHER ASSEMBLIES 63
Seats 63
Side Access Door 64
Hitch Option—Detail 65
USATS DEISEL MAINTENANCE 66
Lubrication Chart 66
Preventative Maintenance 67
Daily Operator Responsibilities 68
Specifications & Capacities 69

REVISION LOG 71

WARRANTY

***WARNING – DO NOT** USE JET A FUEL IN THIS ENGINE. ANY USE OF JET A FUEL WILL VOID THE WARRANTY ON THE ENGINE AND WILL RESULT IN VIOLATION OF EPA EMISSIONS REGULATIONS

VEHICLE ID INFORMATION

This information can be found on the tractor's I.D. Plate located on the firewall next to the driver's seat. Additionally, there is a permanent serial number located on the rear bulkhead inside the engine compartment.

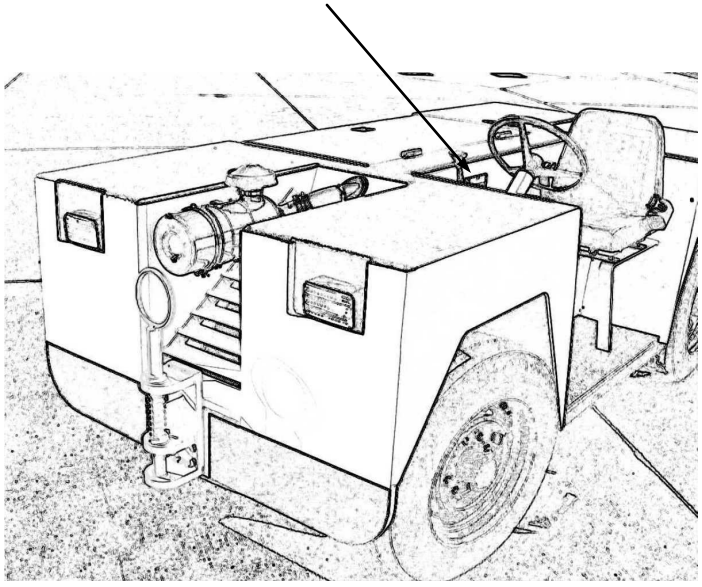
MODEL _____

SERIAL # _____

MFG DATE _____

ENGINE TYPE _____

ENGINE SERIAL # _____



WARRANTY REGISTRATION

Please take time to fill out the warranty registration information found at our website *www.eagletugs.com.*

WARRANTY

WARRANTY INFORMATION

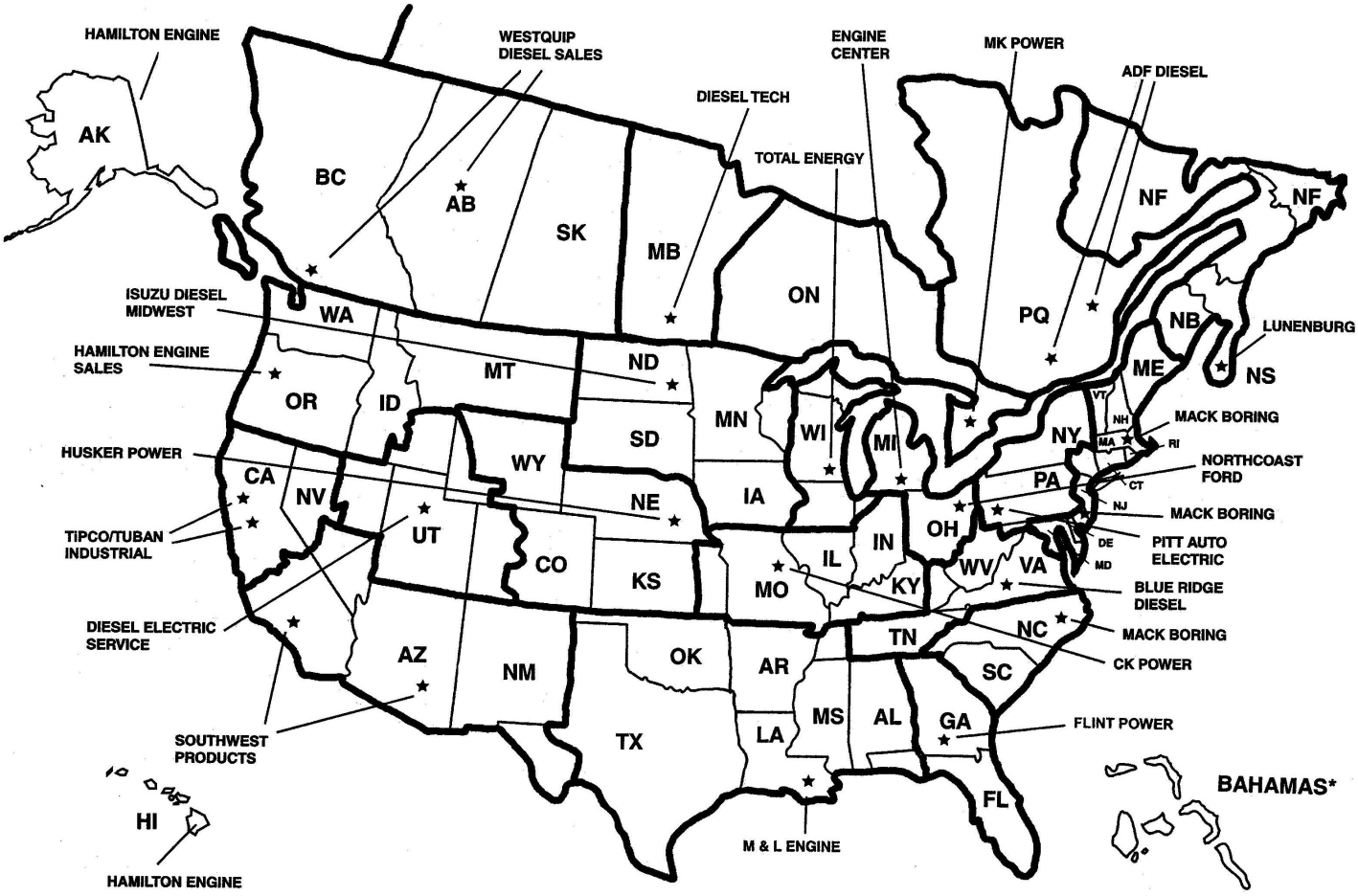
Please read the Eagle Tugs warranty statement (available on our website) carefully.

When contacting Eagle Tugs for warranty or parts service, please have the following information ready:

- Tractor model number
- Tractor serial number
- Current hour reading

This information can be found on the data plate located beside the driver seat with the exception of the hours which can be read using the OPT10 display on the dash.

AUTHORIZED ISUZU DISTRIBUTOR MAP



AUTHORIZED ISUZU DISTRIBUTOR DIRECTORY

UNITED STATES

BLUE RIDGE DIESEL
INJECTION INC
1016 Delaware Street
Salem, VA 24153-0867
540.389.7296
800.476.0456
540.387.2792 fax
www.blueridgediesel.com

CK POWER PRODUCTS
1100 Research Blvd
St. Louis, MO 63132
314.868.8620
314.868.9314 fax
www.ckpower.com
jcostello@ckpower.com

DIESEL ELECTRIC SERVICE
& SUPPLY CO
652 West 1700 South
Salt Lake City, UT 84104
801.972.1836
801.975.7316 fax
www.dessco.com

ENGINE CENTER**
2351 Hilton Road
Ferndale, MI 48220
248.399.0002
800.726.8870
248.399.3142 fax
info@enginecenter.com

FLINT POWER SYSTEMS
408 South Westover Blvd
Albany, GA 31707
229.888.1900
800.821.4025
229.435.2946 fax
www.flintpower.com

HAMILTON ENGINE
SALES INC
5540 NE Columbia Blvd
Portland, OR 97218
503.288.6714
800.437.3644
503.287.8289 fax
www.hamiltonengine.com

HUSKER POWER PRODUCTS
2955 West Highway 6
Hastings, NE 68901
402.463.1531
800.752.0888
402.463.1313 fax
www.huskerpowerproducts.com

ISUZU DIESEL MIDWEST
3141 - 39 Street, SW
Fargo, ND 58104
701.282.7915
877.831.7915
701.282.2472 fax
joelck3@aol.com

M & L ENGINE, LLC
1212 St. Charles Street
Houma, LA 70360
985.857.8000
800.960.0068
985.851.0006 fax
www.mlengine.com
sales@mlengine.com

MACK BORING & PARTS CO**
48 Leona Drive
Middleborough, MA 02346
508.946.9200
800.622.5364 ext 3
508.946.0779 fax
www.mackboring.com

MACK BORING & PARTS CO**
4500 Northchase Parkway, NE
Wilmington, NC 28405
910.792.1900
800.622.5364 ext 2
910.792.6266 fax
www.mackboring.com
carolina@mackboring.com

MACK BORING & PARTS CO
2365 Route 22 West
Union, NJ 07083
908.964.0700
800.622.5364 ext 1
908.964.8475 fax
www.mackboring.com
sales@mackboring.com

NORTH COAST FORD
INDUSTRIAL
11885 Bellaire Road
Cleveland, OH 44135
216.251.5800
800.423.1316
216.251.8675 fax
www.northcoastford.com
mail@northcoastford.com

PITT AUTO ELECTRIC CO
1241 Freedom Road
Cranberry Township, PA 16066
724.778.8200
800.245.0711
724.778.8206 fax
www.pittauto.com
info@pittauto.com

UNITED STATES, cont'd.

SOUTHWEST PRODUCTS CORP
5143 W. Roosevelt
Phoenix, AZ 85043
602.269.3581
877.779.3581
602.269.8448 fax
www.southwestproducts.com

SOUTHWEST PRODUCTS CORP**
2760 Junipero
Signal Hill, CA 90755
562.424.0913
877.779.3581
562.424.4517 fax
www.southwestproducts.com

TiPCO**
8440-C Belvedere Avenue
Sacramento, CA 95826
916.383.1956
800.458.4726
916.383.4296 fax
www.tubanonline.org
info@tubanonline.org

TOTAL ENERGY SYSTEMS
8525 North 87 Street
Milwaukee, WI 53224
414.357.7900
800.236.6626
414.357.6278 fax
www.totalenergysystems.com
wschmidt@totalenergysystems.com

TUBAN INDUSTRIAL
PRODUCTS CO
2003 Leghorn
Mt. View, CA 94043
650.968.2431
800.648.4726
650.969.1267 fax
www.tubanonline.org
info@tubanonline.org

CANADA

ADF DIESEL
1790, route de l'Aeroport
Ste-Foy, PQ G2E 3L9
418.681.0631
800.265.6720 (Canada)
418.681.3686 fax
www.adfdiesel.com

ADF DIESEL**
2355 Boul Hymus
Dorval, PQ H9P 1J8
514.684.0440
800.517.1489 (Canada)
514.684.2417 fax
www.adfdiesel.com
marc.fontaine@adfdiesel.com

DIESELTECH
100 Otter Street
Winnipeg, MB R3T 0M8
204.452.4334
800.665.7665 (Canada)
204.452.7984 fax
www.dieseltech.mb.ca
info@dieseltech.mb.ca

LUNENBURG FOUNDRY
& ENGINEERING, LTD
53 Falkland Street
Lunenburg, NS B0J 2C0
902.634.8827
902.634.8886 fax (head office)
902.634.8889 fax (sales, parts
& service)
www.lunenburgfoundry.com

M-K POWER PRODUCTS
5641 McAdam Road
Mississauga, ON L4Z 1N9
905.890.5323
800.263.5011
905.890.6660 fax
800.430.0344 fax
www.m-k.com

WESTQUIP DIESEL SALES
(ALTA.) LTD
11720 - 181 Street
Edmonton, AB T5S 1M6
780.486.2645
780.486.2676 fax
gdumont@westquip.ca

** Branch Office

Pub # SL-4010-06
08/04

AUTHORIZED ISUZU DISTRIBUTOR DIRECTORY

Isuzu Motors Limited - Worldwide Distributor Network			
Asia / Pacific			
Japan	Isuzu Motors Limited	Tawain	Leanmark Co.
	3-1, Kamigo, 4-Chome, Ebina		9F-1, No.201 Sec 2
	Kanagawa-Ken, 243-0434, Japan		Keelung Road, Taipei, Taiwan
	(Non-Automotive Engines)		Fax: 1437-0308
	Phone: 81-46-234-6180		
	Phone: 81-46-234-6093		
Europe			
Belgium / The Netherlands	DBH		Division of MACME
	Rivierdijk 452, 3372 BW		Boomsesteenweg 42B
	Hardinxveld-Giessendam		B-2630 Aartselaar
	The Netherlands		Phone: +32-3-870-8180
	Phone: +31 184 613066		Fax: +32-3-870-8188
	Fax: +31 184 618002		
Denmark	Holm-Denmark	Finland	Finmotor
	Sydvestvej 142-144		Palvitie 3
	DK-2600 Glostrup		FIN-01390 Vantaa
	Phone: +45-43-633700		Phone: +35-8987-00970
	Fax: +45-43-631403		Fax: +35-8987-009770
France	Penven	Germany	Lopke Diesel Gmbh
	281, Chaussee Jules Cesar		Ferdinand-Zeppelin-Strasse 19
	F-95250 Beauchamp		47445 Moers
	Phone: 1-34135432		Germany
	Fax: 1-39957659		Phone: 0049 (0) 2841-99 90 445
			Fax: 0049 (0) 2841-99 90 185
Greece	Petros Petropoulos S.A.	Italy	Pitteri Violini S.P.A.
	Lera Odos 96-102		20021 Baranzate de Bollate
	P.O.B. 41018 12210		Milano, Via I Maggio, 25/57 Italy
	Athens		Phone: +39-02-382209-220
	Phone: 347-3300		Fax: +39-02-3561674
	Fax: 347-3404		
Norway	Diesel Power A/S	Portugal	Motolusa
	Industriveien 7, P.O.B. 144		Estrada da Circunvalacao
	N-3430 Spikkostad		Portela da Ajuda
	Phone: 3129-1940		P-1495 Lisboa
	Fax: 3129-1958		Phone: 1214-241823
			Fax: 1214-171927

AUTHORIZED ISUZU DISTRIBUTOR DIRECTORY

Isuzu Motors Limited - Worldwide Distributor Network				
Spain	Transdiesel Div. de Casli, S.A.		Automoviles Utilitarios, S.A. (AUSA)	
	c/Viguetas Castilla, 26		CRA.DE VIC, KM. 2,8 - P.O.B. 194	
	E-28820 Coslada - Madrid		08240 Manresa, (Barcelona)	
	Phone: 1-6737012		Phone: 93-874 7311	
	Fax: 1-6737412		Fax: 93-874 1211	
Sweden	Swed Motor AB	Switzerland	Sterki AG	
	Box 4		Zinkereistrasse 35	
	S-13721 Vasterhaninge		CH-8633 Wolfhausen	
	Phone: 8-50012140		Phone: 55-253-2600	
	Fax: 8-50026800		Fax: 55-253-2609	
United Kingdom	HM Isuzu		Isuzu Motors Europe Limited	
	Unit 5A, Babdown Airfield		Suite 24, The Courtyards	
	Nr Tetbury, Gloucestershire GL8 8YL		Croxley Business Park	
	United Kingdom		Hatters Lane, Watford	
	Phone: 44+1666500843		Hertfordshire, WD1 8YH	
	Fax: 44+1666500844 - FAX		United Kingdom	
			Phone: 1923-231-580	
Middle East				
Oman	General Engineering Service Est.	U.A.E.	General Navigation and Commerce Company	
	C.R. 1/27447/3 P.O.B.5690		Za'abeel Place Road	
	Ruwi, Sultanate Of Oman		P.O. Box 5563, Dubai	
	Fax: +968-591802		Phone: +971-370065	
			Fax: +971-370308	
Oceania				
Australia	Isuzu Australia Limited	New Zealand	Holden New Zealand Limited	
	Building 1, Brooklyn Estate		Plant No.1, Private Bag	
	77 Millers Road		Upper Hut	
	Brooklyn, Victoria 3025		Phone: 4-528-1200	
	Australia		Fax: 4-528-1125	
	Phone: 61 3 9931 9977			
	Fax: 61 3 9315 2370			

SERVICE & PARTS BULLETIN

SVS-21-07
8/9/2007

TO: ALL DISTRIBUTOR & DEALER SERVICE PERSONNEL

SUBJECT: J-SERIES ENGINE OIL FILL PROCEDURES

BACKGROUND INFORMATION

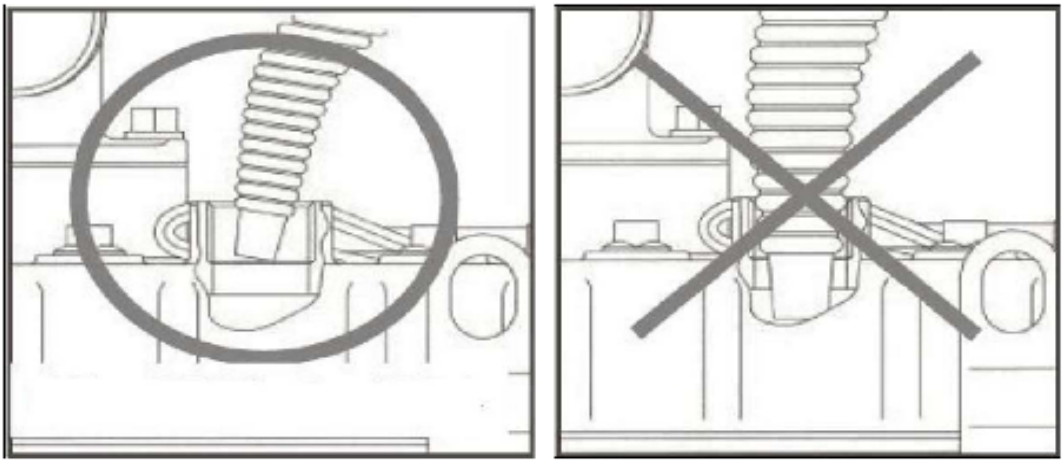
Improper engine oil fill rate and crankcase venting while filling may allow oil to enter the crank case ventilation system, intake manifold and combustion chamber, which may cause engine damage at startup.

ACTION REQUIRED

Follow the Oil Fill Procedure provided below, or refer to the appropriate engine Instruction Manual to prevent this non warrantable failure mode.

OIL FILL PROCEDURE

1. Before adding engine oil, remove the engine oil dipstick to provide crankcase ventilation.



2. Use an engine oil fill device that is smaller than the oil fill hole so that air is allowed to pass along the side of the oil fill hole.
3. Add engine oil slowly, at a rate that does not flood the valve cover. Be very careful when using automatic oil fill pumps; adjust to a slow rate if possible.
4. When changing the engine oil, add the exact amount specified in the manual.
5. Allow 10-20 minutes for the oil to drain into the oil pan. Confirm this by checking the oil level with the dip stick (repeatedly) until it stabilizes.

ISUZU DIESEL

SERVICE & PARTS BULLETIN

6. Check if the oil level is low, accounting for the oil filter oil capacity.
7. If the oil is low, oil may have entered the Closed Crankcase Ventilation (CCV) system and into the intake manifold and cylinder. If so, the oil must be removed before cranking the engine.

PROCEDURE FOR EVACUATING OIL FROM THE CCV SYSTEM

1. If oil entered the CCV system, it may be found in the intake manifold. Remove the intake manifold for verification.
2. Oil that has entered the CCV system can be removed from the cylinders by removing all fuel injection nozzles and turning the engine with the starter until all oil is exhausted from the cylinders.

If you should have any questions please contact your service and parts representative.

Best Regards,

The **ISZAPT** *Service & Parts Team*

SAFETY INFORMATION

IMPORTANT SAFETY NOTICE

Appropriate service methods and proper repair procedures are essential for the safe, reliable operation of all industrial engines as well as the personal safety of the individual performing the work. This Service Manual provides general directions for accomplishing service and repair work with tested and effective techniques. Following them will help assure reliability.

There are numerous variations in procedures, techniques, tools and parts for servicing equipment, as well as in the skill of the individual doing the work. This Manual cannot possibly anticipate all such variations and provide advice or cautions as to each. Accordingly, anyone who departs from the instructions provided in this Manual must first establish he compromises his/her personal safety, and/or the equipment integrity by his/her choice of methods, tools or parts.

WARNINGS

The following list contains some general WARNINGS that you should follow when you work on equipment:

- Always wear safety glasses for eye protection.
- Use safety stands whenever a procedure requires you to be under the equipment.
- Be sure that the ignitions switch is always in the OFF position, unless otherwise required by the procedure.
- Set the parking brake (if equipped) when working on the equipment. Place wood blocks (4" x 4" or larger) to the front and rear surfaces of the tires to provide further restraint from inadvertent equipment movement.
- Operate the engine only in a well-ventilated area to avoid the danger of carbon monoxide.
- Keep yourself and your clothing away from moving parts when the engine is running, especially the fan and belts.
- To prevent serious burns, avoid contact with hot metal parts such as the radiator, exhaust manifold, tail pipe, catalytic converter and muffler.
- Do not smoke while working on the equipment.
- To avoid injury, always remove rings, watches, loose hanging jewelry, and loose clothing before beginning to work on the equipment. Tie long hair securely behind the head.
- Keep hands and other objects clear of the radiator and blades. Electric cooling fan(s) can start to operate at any time by an increase in under hood temperatures, even though the ignition is in the OFF position. Therefore, care should be taken to ensure the electric cooling fan(s) are completely disconnected when working under the hood.

SERVICE PARTS ILLUSTRATIONS & DETAIL

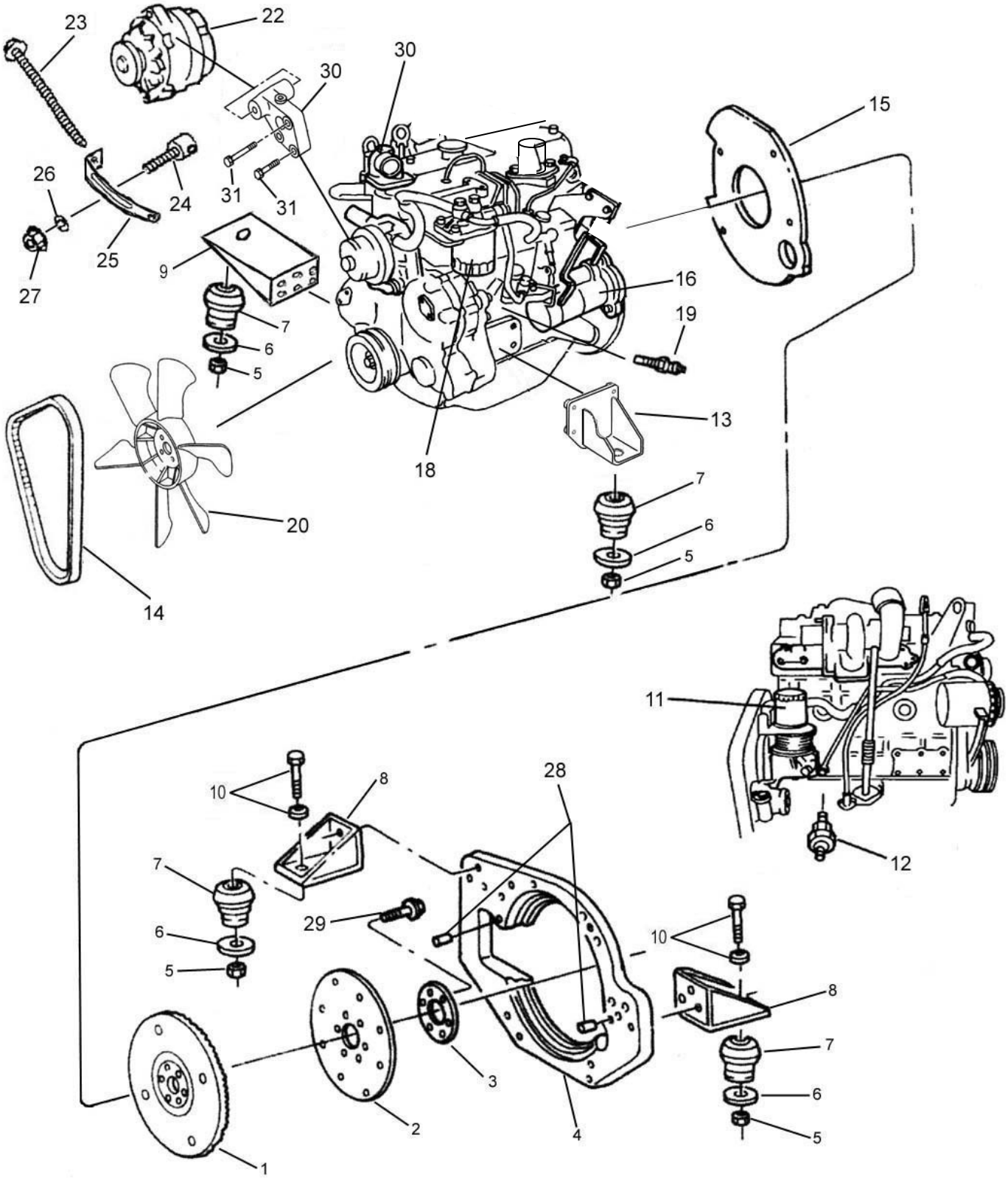
IDENTIFICATION KEY

The following abbreviations are used throughout the parts lists in this section.

Abbreviation	Meaning	Purpose
NL	Not Listed	Part required but not shown on diagram
NPN	No Part Number	Parts shown and numbered, but not stocked and sold by Eagle. Typically used for bolts, clamps, etc…
AR	As required	

POWER TRAIN

ENGINE DRESS—ISUZU DIESEL



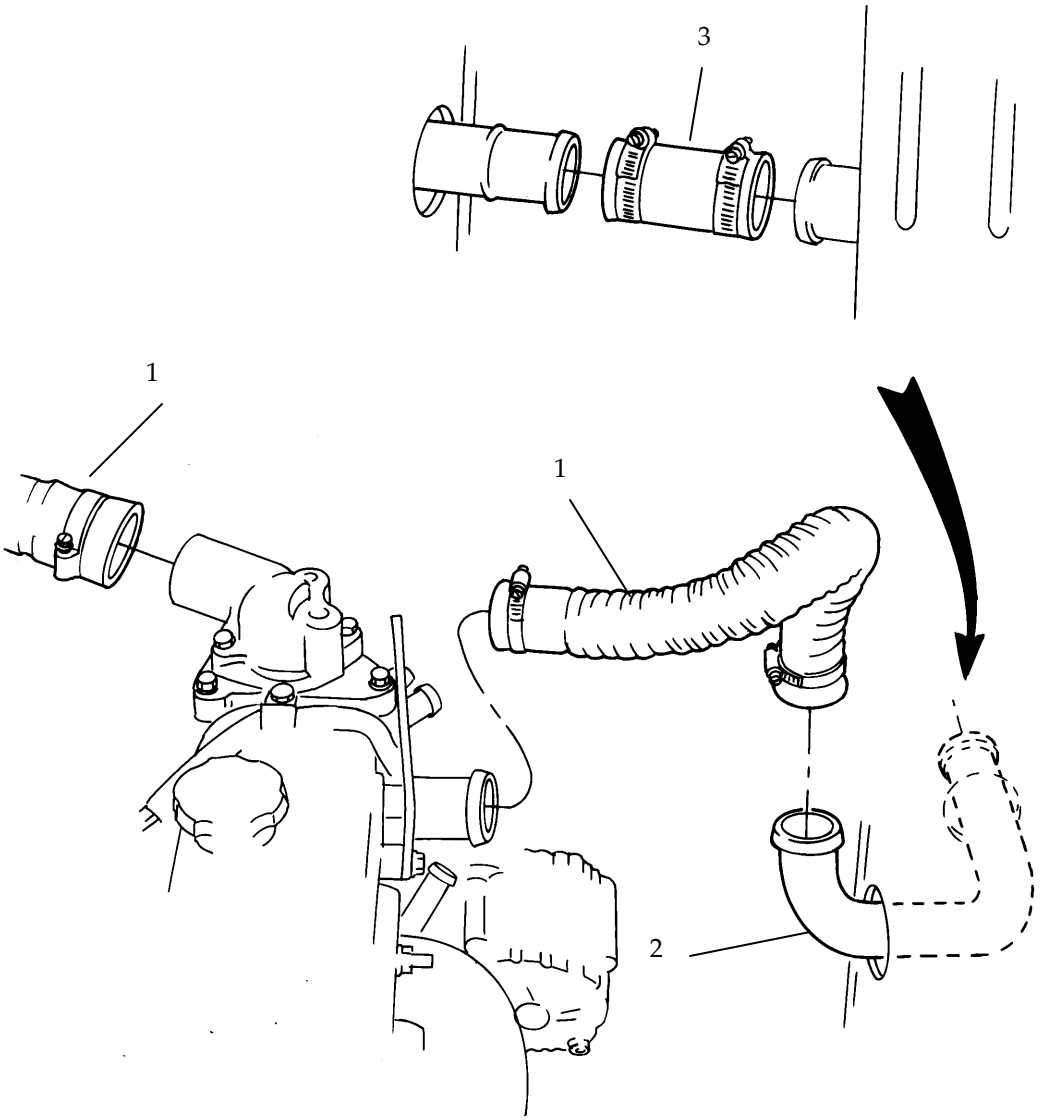
POWER TRAIN

ENGINE DRESS—ISUZU DIESEL—DETAIL

Item	Part Number	Qty	Description
1	B-TT10TD-00017-1	1	FLYWHEEL
2	B-TT10TD-00016-ID	1	FLEX PLATE
3	TM27C00305-ID	1	FLEX PLATE WASHER
4	B-TT10TD-00001-ID	1	TRANS PLATE
5	NPN	4	3/4" LOCK NUT
6	A-TT5D-00010	4	LORD WASHER
7	A-TT5D-00013-1	4	ISOLATOR
8	B-TT5D-0009	2	TRANS MOUNT
9	B-TT5D-00009	1	ENGINE MOUNT
10	NPN	4	3/4-16X3.5 BOLT & 3/4" WHASHER
11	8-94430-983-1	1	OIL FILTER ELEMENT
12	A-TT4-000651	1	OIL PRESSURE SENDING UNIT
13	8971138000	1	ISUZU MOTOR MOUNT
14	1136714360	1	BELT
15	TMD27B00521-ID	1	ENGINE PLATE
16	8970848770	1	STARTER
18	897213-4720	1	FUEL FILTER ELEMENT
19	A-TT4-000652	1	COOLANT TEMP SENDING UNIT
20	5136603081	1	FAN
21	894423-7450	1	ALTERNATOR BRACKET
22	5812003470	1	ALTERNATOR - 50AMP
23	8943881780	1	BOLT, ALT
24	8970862281	1	SLIDING ADJUSTMENT BOLT
25	8971842640	1	ALTERNATOR ADJUSTING BRACKET
26	1099851770	1	LOCK WASHER, ALT
27	9091105080	1	NUT, ALT
28	5240849	2	DOWEL PINS
29	13MM-ID	8	M-13 BOLTS
30	8970186640	1	THERMOSTAT HOUSING
NL	8972112090	1	THERMOSTAT
NL	894365-6741	1	THERMOSTAT GASKET
NL	8970908790	1	THERMOSTAT HOUSING GASKET

COOLING SYSTEM

COOLING SYSTEM—USATS 4JG1 ENGINE MODELS ONLY

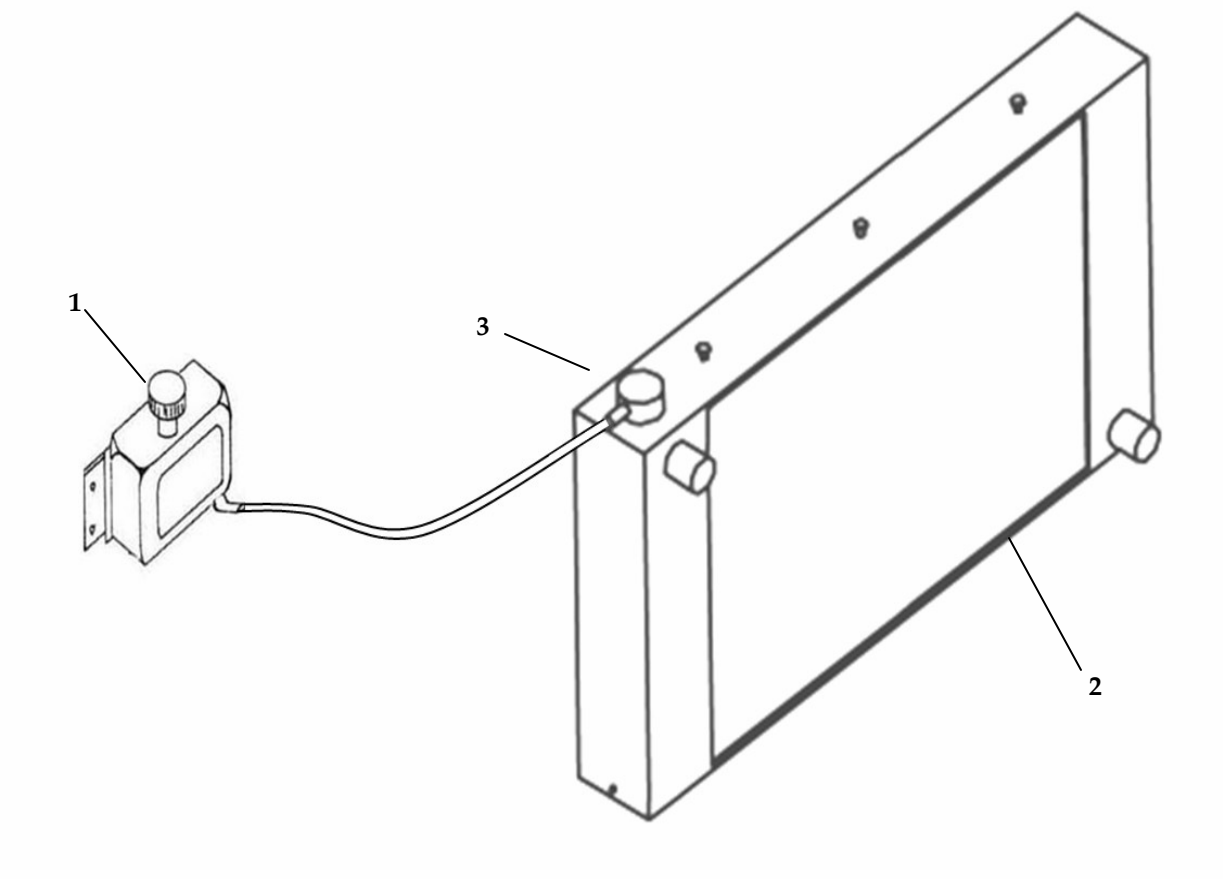


COOLING SYSTEM—DETAIL

Item	Part Number	Qty	Description
1	A-TT10-00323	2	RADIATOR HOSE BOTTOM
2	A-USAT5-00100	1	LOWER COOLING TUBE
3	BULK HOSE	1	BOTTOM HOSE 1 1/2 IN X 3IN

COOLING SYSTEM

COOLING SYSTEM—USATS 4JG1 ENGINE MODELS ONLY



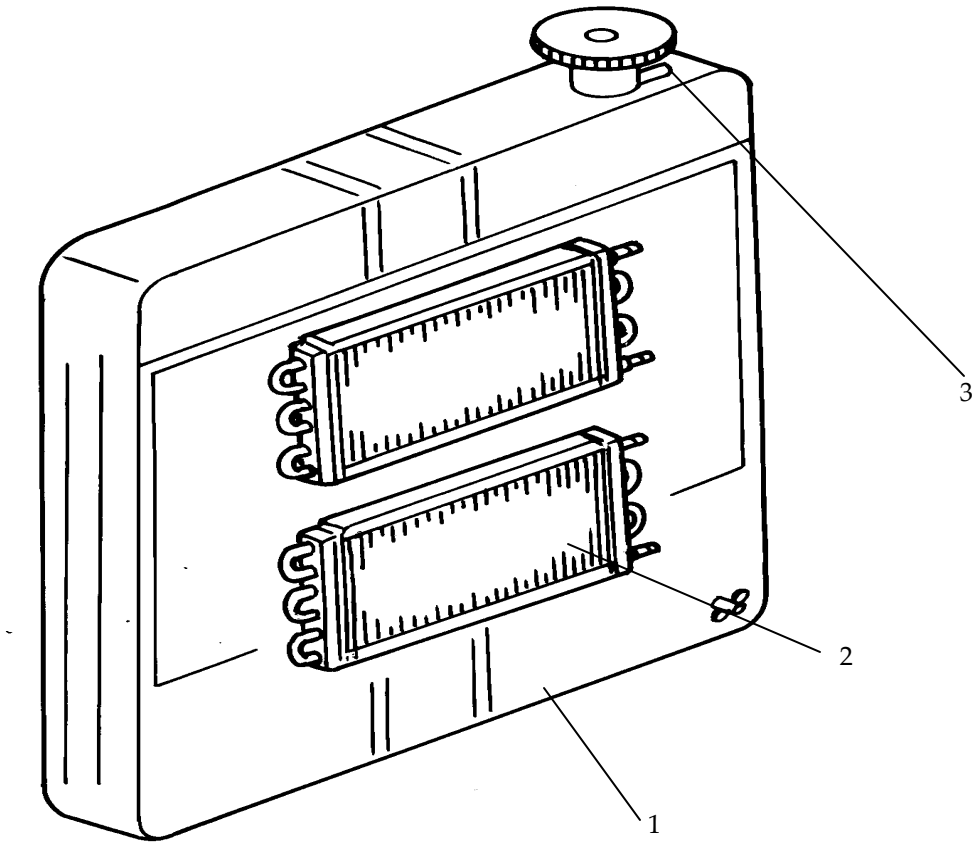
COOLING SYSTEM—DETAIL

Item	Part Number	Qty	Description
1	A-TT10TD-00322	1	SURGE TANK
2	A-USAT5-00311-1	1	RADIATOR
3	A-USAT5-00330	1	RADIATOR CAP
4	A-USAT5-50-15-1	1	UPPER SHROUD (NOT SHOWN)
5	A-USAT5-50-16-1	1	BOTTOM SHROUD (NOT SHOWN)

This page was intentionally left blank

COOLING SYSTEM

COOLING SYSTEM— TRANSMISSION

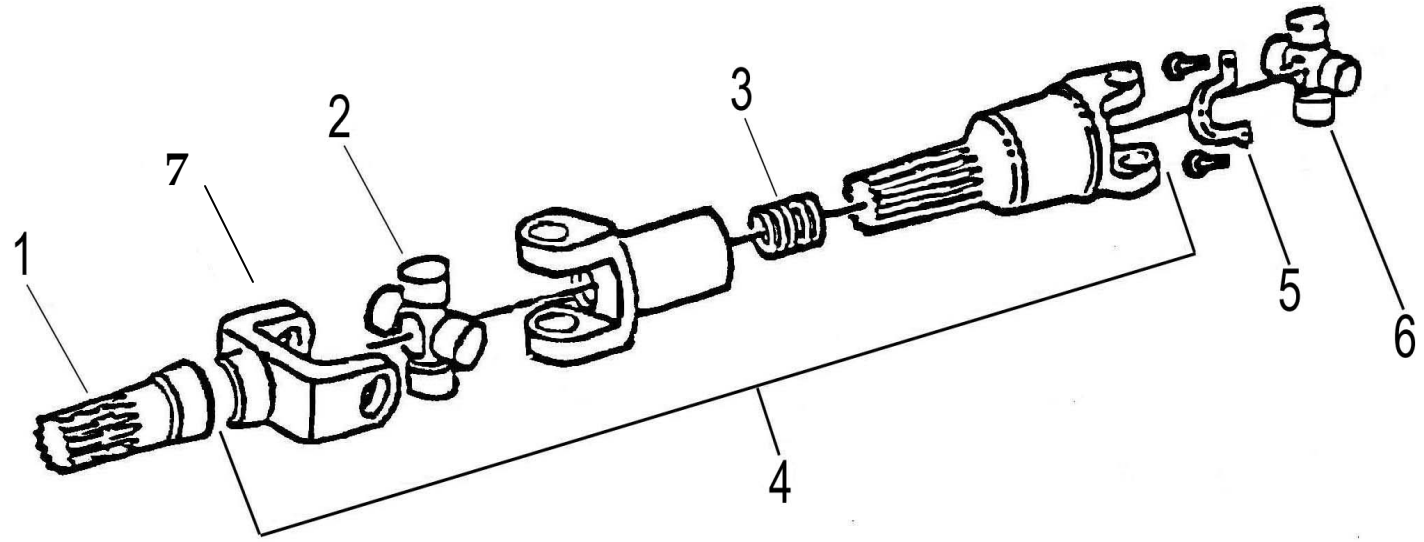


COOLING SYSTEM—TRANSMISSION DETAIL

Item	Part Number	Qty	Description
1	A-USAT5-00311-1	1	RADIATOR
2	A-TT4-00221-1	2	TRANSMISSION COOLER
3	A-USAT5-00330	1	RADIATOR CAP

DRIVELINE

DRIVE SHAFT ASSEMBLY—FRONT

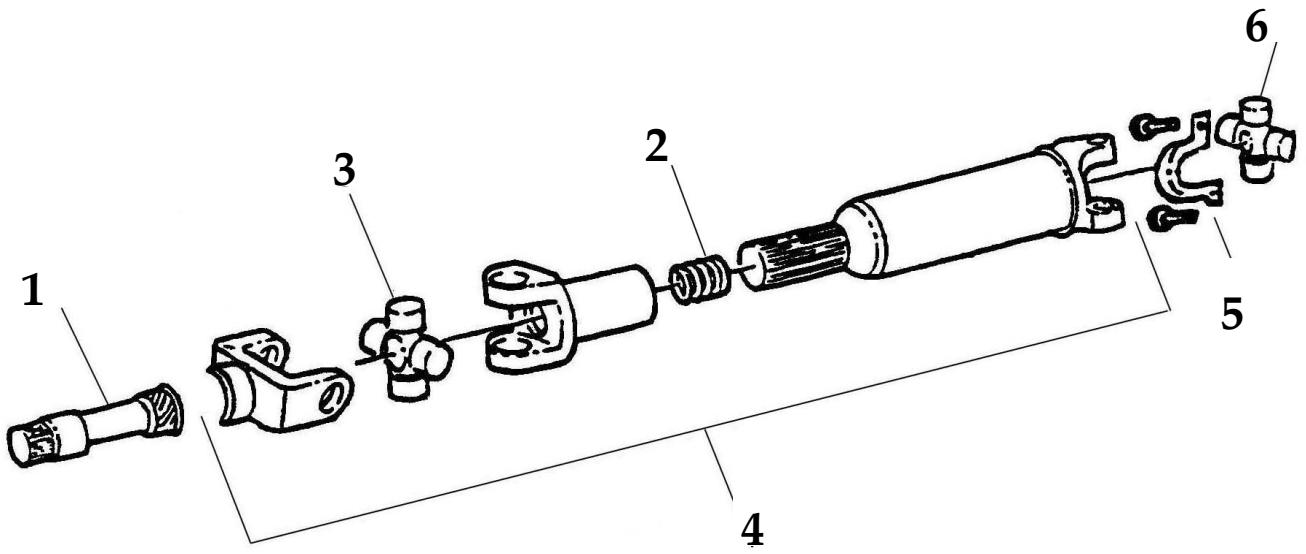


DRIVE SHAFT ASSEMBLY— FRONT DETAIL

Item	Part Number	Qty	Description
1	A-TT8-00201-1	1	TRANSMISSION OUTPUT YOKE SHAFT-FRONT
2	A-TT4-00132-1	1	CROSS BEARING FRONT D/S NEW STYLE
3	A-TT4-00134	1	DRIVE SHAFT SPRING
4	A-TT8-00202-4	1	DRIVE SHAFT
5	A-TT4-00130	2	END YOKE STRAP AND BOLT KIT
6	A-TT4-00137-1	1	CROSS BEARING FRONT D/S NEW STYLE
7	2-4-1921	1	END YOKE

DRIVELINE

DRIVESHAFT ASSEMBLY—REAR

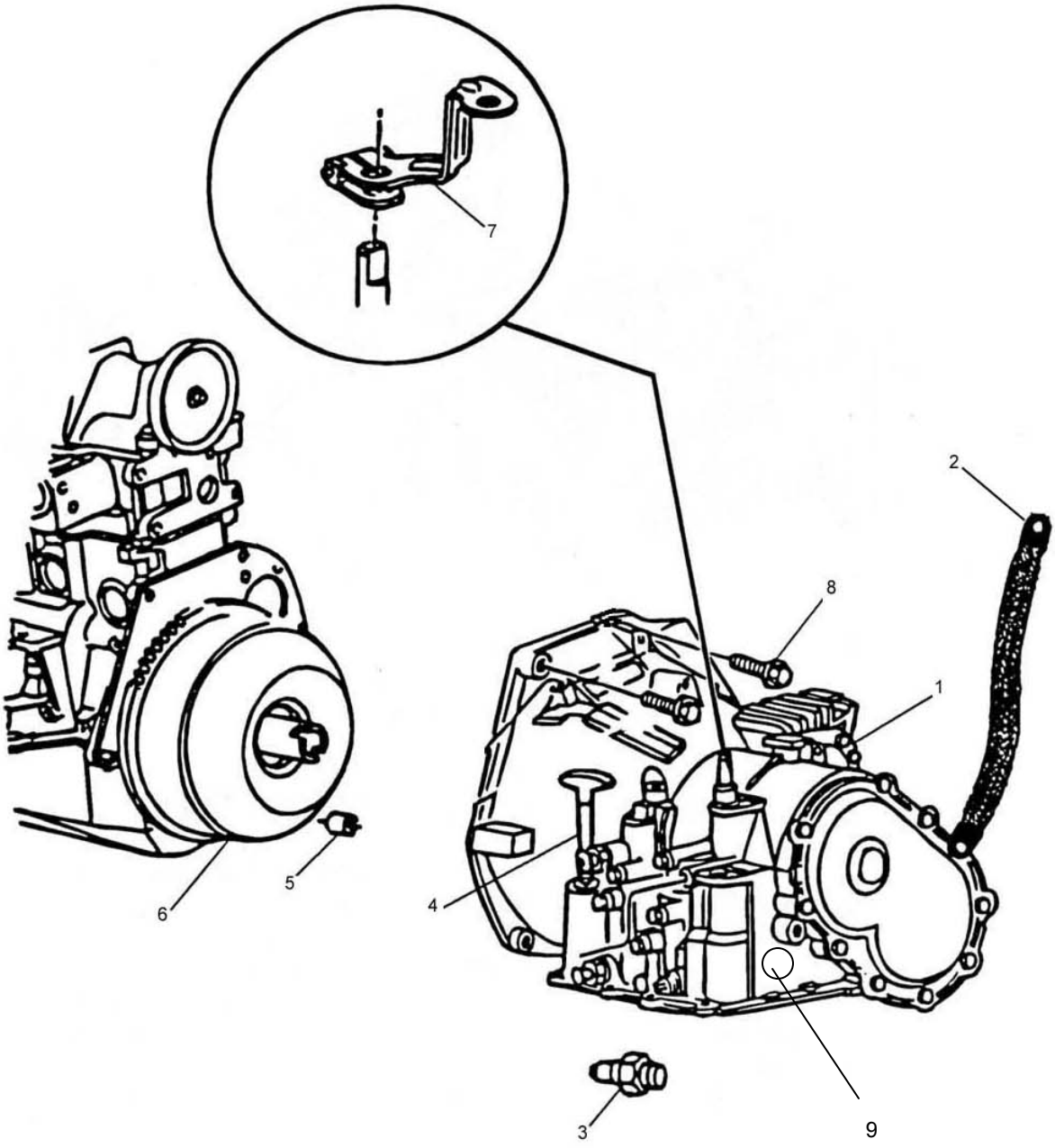


DRIVE SHAFT ASSEMBLY—REAR DETAIL

Item	Part Number	Qty	Description
1	A-TT8-00201-2	1	TRANSMISSION OUTPUT YOKE SHAFT-REAR
2	A-TT4-00134	1	DRIVE SHAFT SPRING
3	A-TT4-00132-1	1	CROSS BEARING FRONT D/S NEW STYLE
4	AB-TT4-00130-1	1	DRIVE SHAFT
5	A-TT4-00130	2	END YOKE STRAP KIT
6	A-TT4-00137	1	CROSS BEARING REAR D/S NEW STYLE

TRANSMISSION

TRANSAXLE MOUNTING & MISC. PARTS



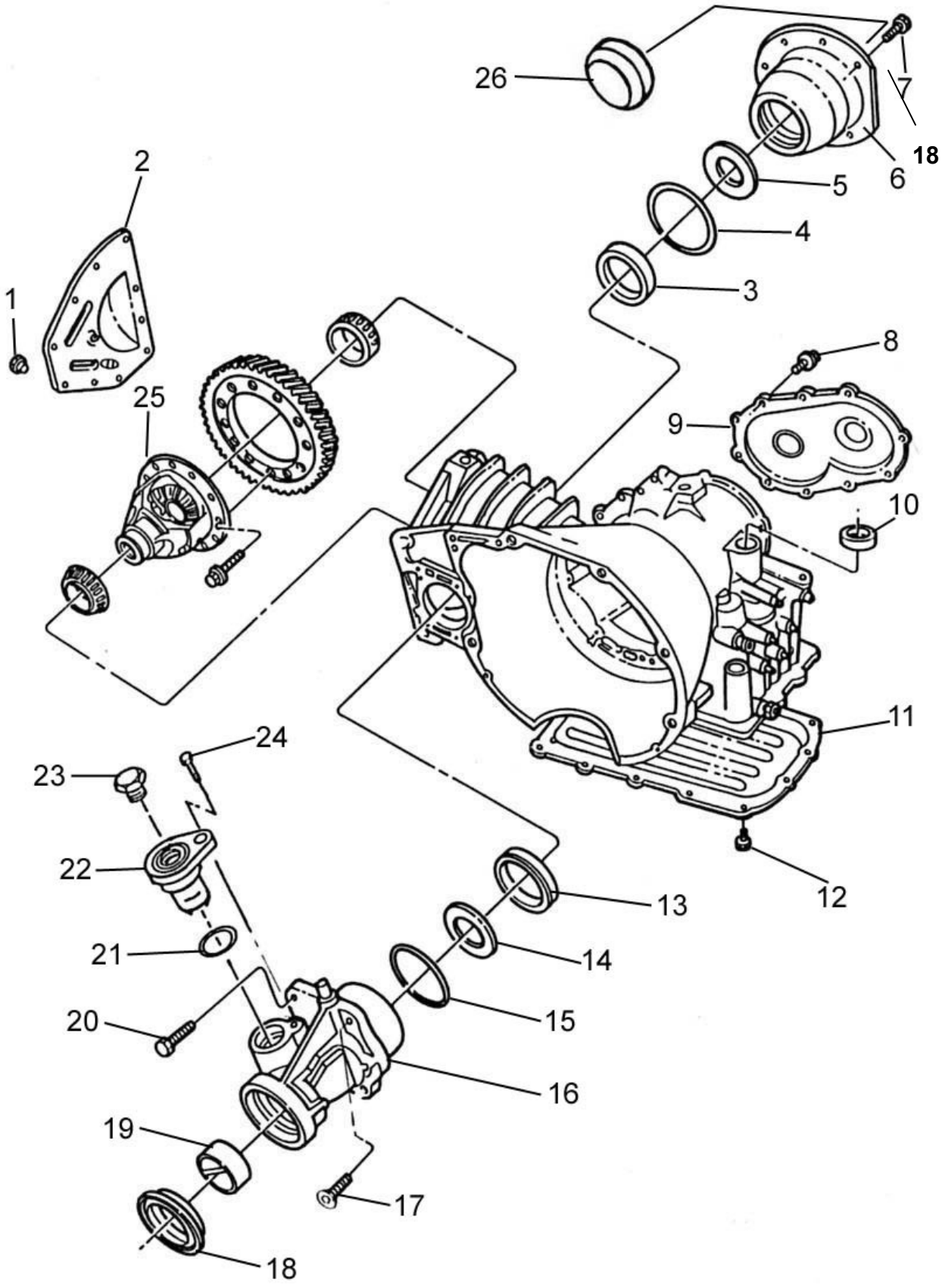
TRANSMISSION

TRANSAXLE MOUNTING & MISC. PARTS DETAIL

Item	Part Number	Qty	Description
1	A-TT5D-0018-1	1	TRANSAXLE
2	A-TN4-00707	1	GROUND STRAP
3	3747361	1	SWITCH-NEUTRAL STARTER & BACK UP LIGHT
4	4856444	1	INDICATOR-TRANSAXLE FLUID
5	5240849	2	DOWEL PIN-TRANSAXLE TO ENGINE ALIGNMENT
6	4778718	1	TORQUE CONVERTER
7	A-TT4-00419	1	TRANSAXLE SHIFT LEVER-MANUAL CONTROL
8	6501741	*	SCREW-HEX CAP-WITH WASHER M12-1.75 X 30
9	85705	*	GASKET & FILTER MAINTENANCE PACKAGE
* CALL EAGLE PARTS DEPT. FOR DETAILS			

TRANSMISSION

TRANSAXLE CASE EXTENTION & RETAINER



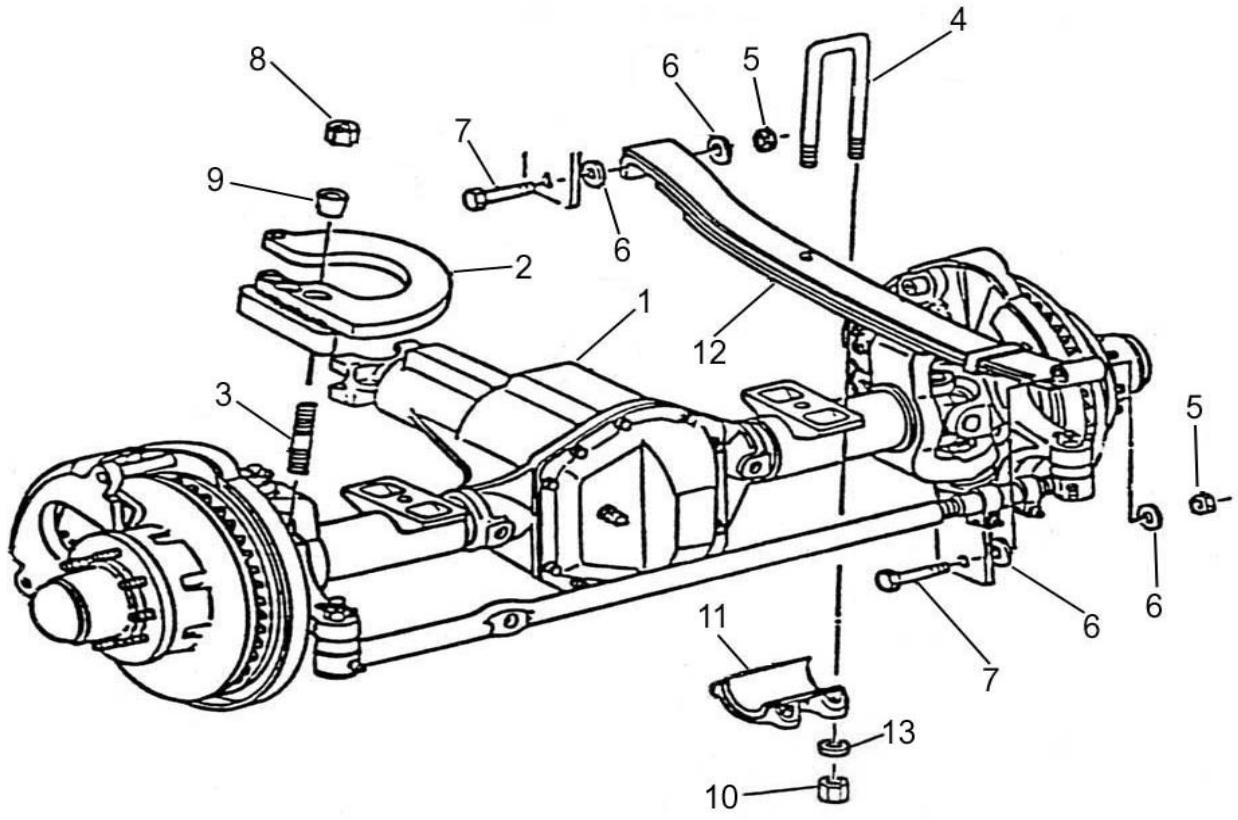
TRANSMISSION

TRANSAXLE CASE EXTENSION & RETAINER - DETAIL

Item	Part Number	Qty	Description
1	6501474	10	SCREW-HEX CAP-W/WASHER M8-1.25 X 16
2	4471573	1	PAN
3	NPN	1	CUP(NOT SOLD SEPARATELY)
4	4504568	1	SPACER KIT
5	4269787	1	RETAINER, OIL
6	4567493	1	RETAINER, BEARING
	6500368	6	SCREW-HEX CAP-M8 X 1.25 X 23
7	NPN	6	SCREW-HEX CAP-WASHER HEAD M8-1.25 X
8	NPN	10	SCREW-HEX CAP M8-1.25 X 15
9	4659342	1	COVER, TRANS. END
	82180	1	RTV SEALANT
	6501474	10	SCREW-HEX CAP W/WASHER M8-1.25 X 16
10	3878447	1	SEAL, MANUAL VALVE SHAFT
11	4471573	1	PAN, TRANSAXLE OIL
12	6501474	12	SCREW-HEX CAP W/WASHER M8-1.25 X 16
	6101285	1	SCREW-HEX CAP-W/WASHER M6-1 X 16
13	4567022	1	CUP
14	4567494	1	RETAINER
15	6500111	1	O-RING
16	4549219	1	OUTPUT HOUSING
	6500511	4	SCREW-HEX CAP-W/WASHER M8-1.25 X 33
17	NPN	2	M8 HEX HEAD SCREW
18	4412522	2	SEAL
19	NPN	1	BUSHING (SERVICED IN EXT.)
20	NPN	4	SCREW-HEX CAP WASHER HEAD M8-1.25 X
21	5212151	1	O-RING
22	4295857	1	SPEEDOMETER CABLE ADAPTOR
23	NPN	1	SCREW-FLAT HEAD HEX SOCKET M8-1.25 X
24	NPN	1	SCREW-HEX CAP-WASHER HEAD M6-1.0 X
25	A-TT5D-00021	1	DIFFERENTIAL-WELDED SPIDER GEAR
26	A-TT4-00657	1	TRANSMISSION PLUG (2WD ONLY)

AXLES

AXLE ASSEMBLY—FRONT DRIVE (4WD)

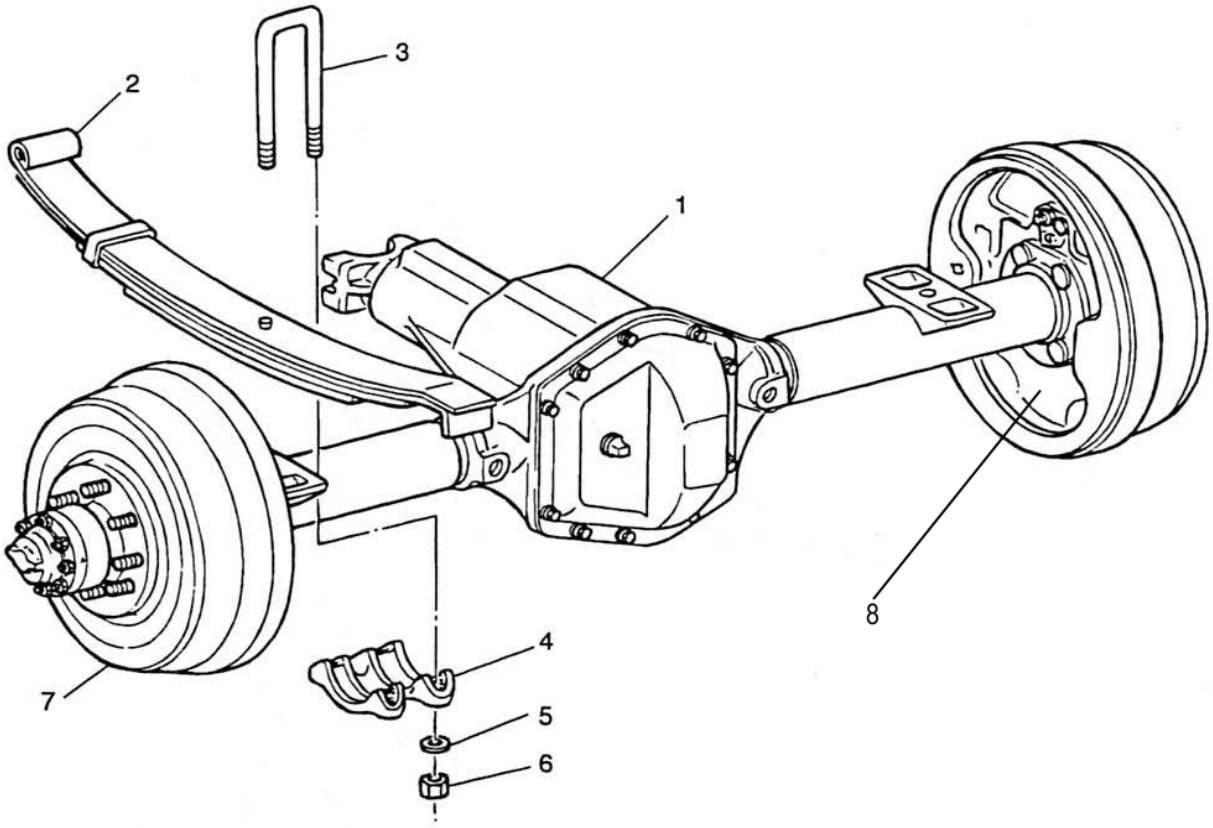


AXLE ASSEMBLY—FRONT DRIVE—DETAIL

6	A-TT4-00119	12	NYLON WASHER
7	NPN	4	SCREW-HEX CAP 3/8-16X3.5
8	NPN	3	NUT 9/16-18 GR8
9	3965138	3	BUSHING
10	A-TT4-00365	8	*NUT, AXLE U-BOLT
11	A-TT4-00118-3	2	MACHINED AXLE CLAMP PLATE
12	A-TT4-00116	2	LEAF SPRING
13	A-TT4-00366	8	*WASHER, AXLE U-BOLT
* INCLUDED IN #4 U-BOLT KIT			

AXLES

AXLE ASSEMBLY— REAR

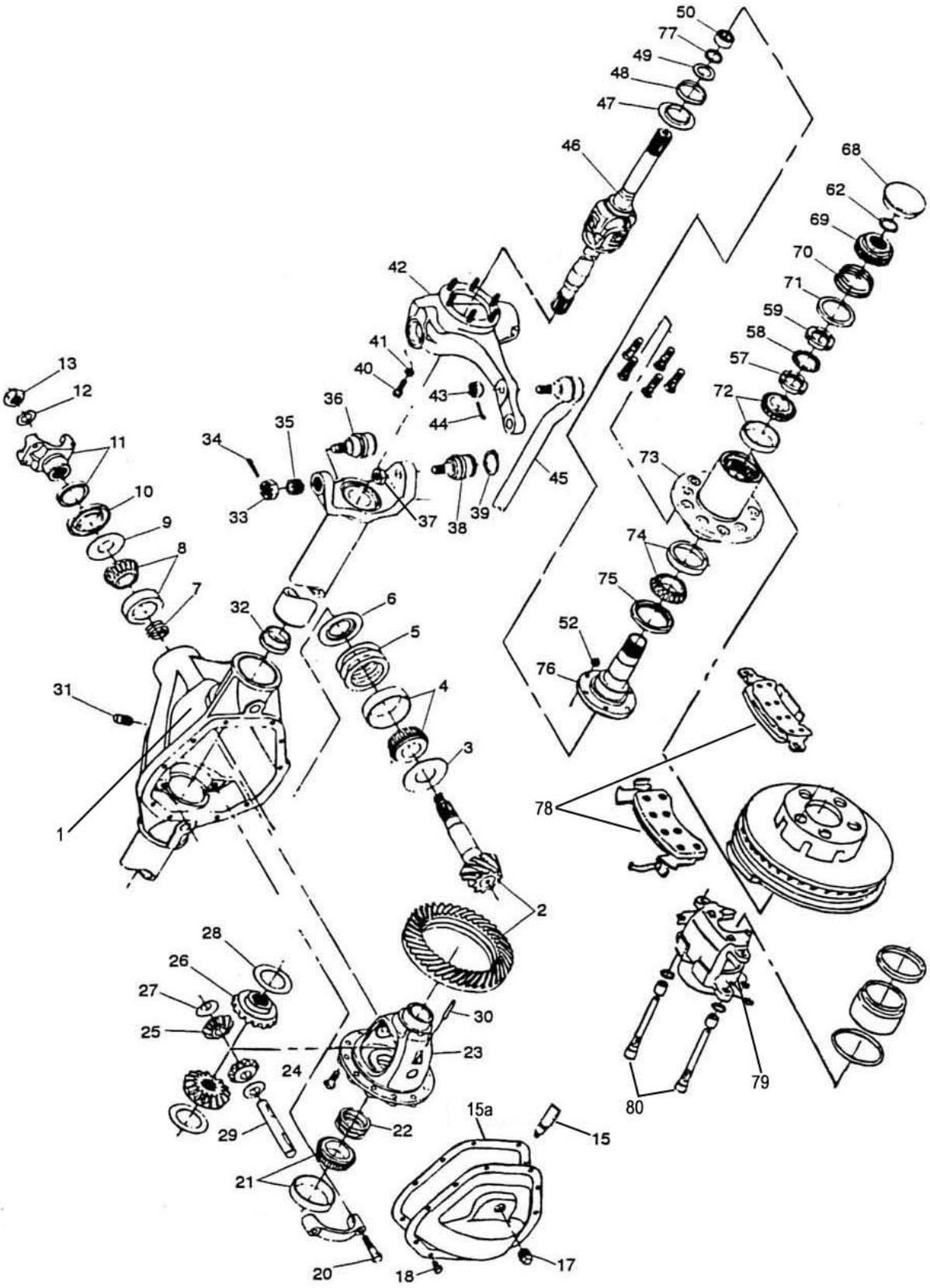


AXLE ASSEMBLY—REAR—DETAIL

Item	Part Number	Qty	Description
1	A-TT4-00361	1	REAR AXLE ASSEMBLY
2	A-TT4-00116	2	LEAF SPRING
3	A-TT4-00362-1	4	U-BOLT KIT *INCLUDES ITEMS 5 AND 6
4	A-TT4-00363	2	AXLE CLAMP PLATE
5	A-TT4-00366	8	WASHER
6	A-TT4-00365	8	NUT
7	4313905	1	LEFT HAND BACKING PLATE

AXLES

AXLE ASSEMBLY BREAKDOWN—FRONT DRIVE (4WD)



AXLES

AXLE ASSEMBLY BREAKDOWN—FRONT DRIVE—DETAIL

Item	Part Number	Qty	Description
1	A-TT8-00371	1	COMPLETE AXLE ASSEMBLY
2	22404X	1	GEAR & PINION ASSEMBLY
3	30764	1	SLINGER-PINION OIL INNER
4	706031X	KIT	INNER PINION BEARING
5	706617X	KIT	SHIM-PINION ADJUSTING
6	30765	1	BAFFLE-PINION OIL
7	706617X	KIT	SHIM-PINION BEARING ADJUSTING
8	706030	KIT	OUTER PINION BEARING
9	13575	1	SLINGER-PINION OIL OUTER
10	39118	1	SEAL-OIL
11	345761X	1	END YOKE ASSEMBLY
12	30186	1	WASHER-PINION NUT
13	30185	1	NUT-PINION
15	82180	AR	RTV SEALANT
15a	34685	1	GASKET
17	36472	1	PLUG-COVER PLATE
18	34279	10	SCREW-FLANGE HD
19	N/A	2	CAP DIFFERENTIAL BEARING
20	48632-1	2	1/2-13 X 2.25 GRD8 HEX BOLT
21	706032X	KIT	DIFFERENTIAL BEARING
22	706618X	KIT	DIFFERENTIAL SHIM
23	25806X	1	CASE-DIFFERENTIAL ASSY
	32684	1	CASE-DIFFERENTIAL
24	41221	10	BOLT-DRIVE GEAR
25	17717	2	PINION-DIFFERENTIAL
26	706027X	2	GEAR-DIFFERENTIAL KIT (KIT INCLUDES 15a AND 24-29)
27	13338-3	2	THRUST WASHER DIFFERENTIAL PINION
28	32121	2	THRUST WASHER DIFFERENTIAL GEAR
29	39194	1	SHAFT-DIFFERENTIAL
30	13449	1	PIN-ROLL
31	16979	1	VENT
32	36352	2	SEAL & GUIDE-SHAFT
33	44101	2	NUT-SLOTTED
34	500024-8	2	PIN-COTTER
35	35417	2	RING-ADJUSTING
36	40112	1	SOCKET ASSEMBLY-UPPER
37	35566	2	NUT-LOCK
38	40113	1	SOCKET ASSEMBLY-LOWER
39	35928	1	RING-SNAP
40	310026-2	2	BOLT-STOP
44	500024-4	2	PIN-COTTER
45	044TR115-16X	1	TIE ROD ASSEMBLY

This page was intentionally left blank

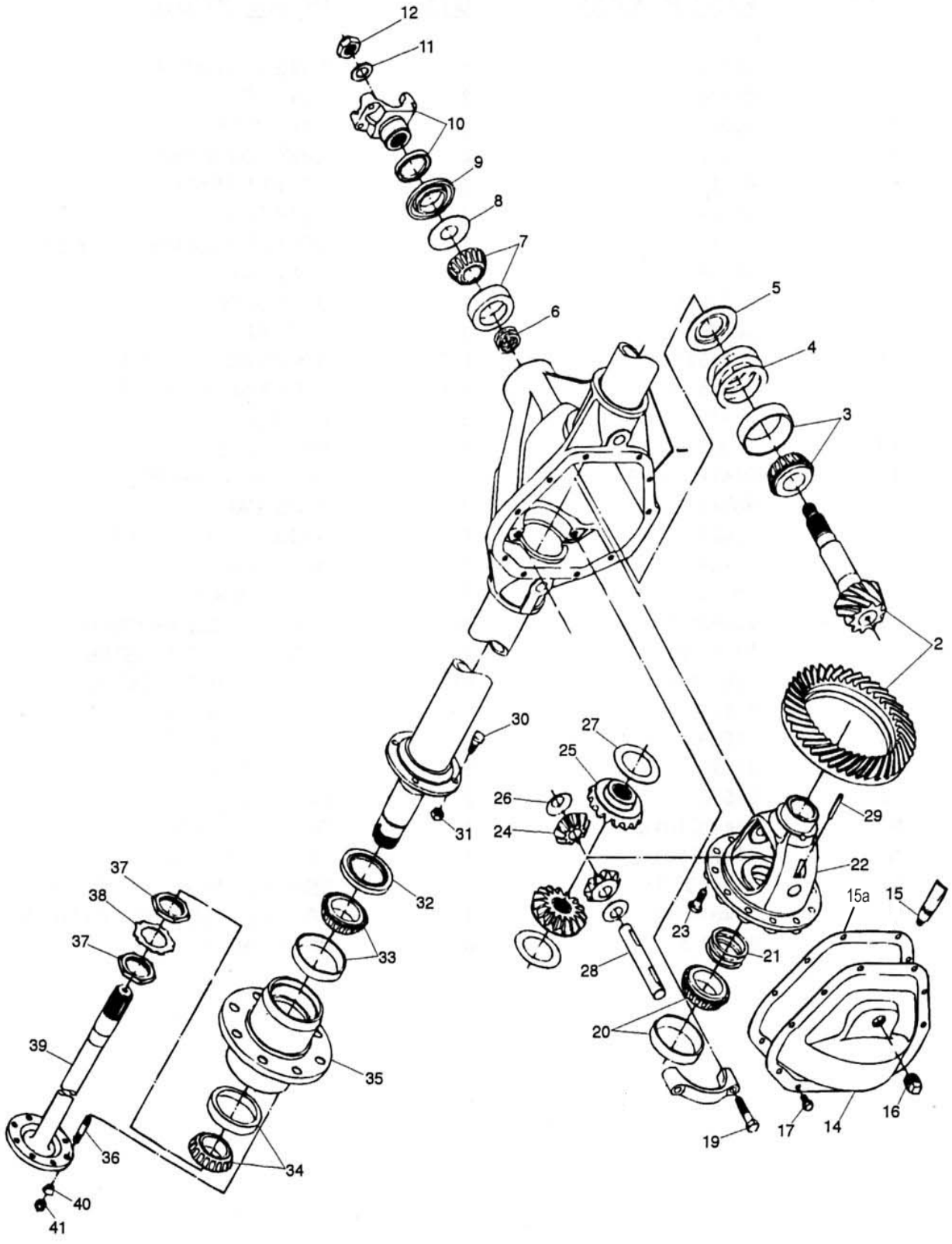
AXLES

AXLE ASSEMBLY BREAKDOWN—FRONT DRIVE—DETAIL (CONT.)

Item	Part Number	Qty	Description
45	044TR115-16X	1	TIE ROD ASSEMBLY
46	660091-18	2	SHAFT & JOINT ASSEMBLY
47	36364	1	SLINGER
48	38128	2	SEAL-OIL
49	38106	2	SPACER
50	550759	2	BEARING-NEEDLE
52	35704	12	NUT-LOCK
57	21588X	2	SPINDLE NUT
58	36569	2	LOCK-RETAINING NUT
59	31139	2	NUT-SPINDLE
62	31624	2	RING-SNAP
68	31552	2	CAP-HUB
69	42667	2	GEAR-AXLE DRIVE
70	35218	2	SPRING PRESSURE
71	32589	2	PLATE-SPRING RETAINING
72	706111X	KIT	OUTER WHEEL BEARING
73	044HU103	2	HUB & ROTOR ASSEMBLY
74	706690-X	KIT	INNER WHEEL BEARING
75	36366	2	AXLE SEAL
76	706570	KIT	SPINDLE ASSEMBLY
	7065227X	KIT	SPINDLE SEAL & BEARING
77	36361	1	SEAL-OIL
78	RD52	1 SET	BRAKE PAD SET
79	18-4167	1	CALIPER ASSY LEFT
79	18-4166	1	CALIPER ASSY RIGHT
80	5468226	1SET	ANCHOR BOLTS

AXLES

AXLE ASSEMBLY BREAKDOWN—REAR DRIVE



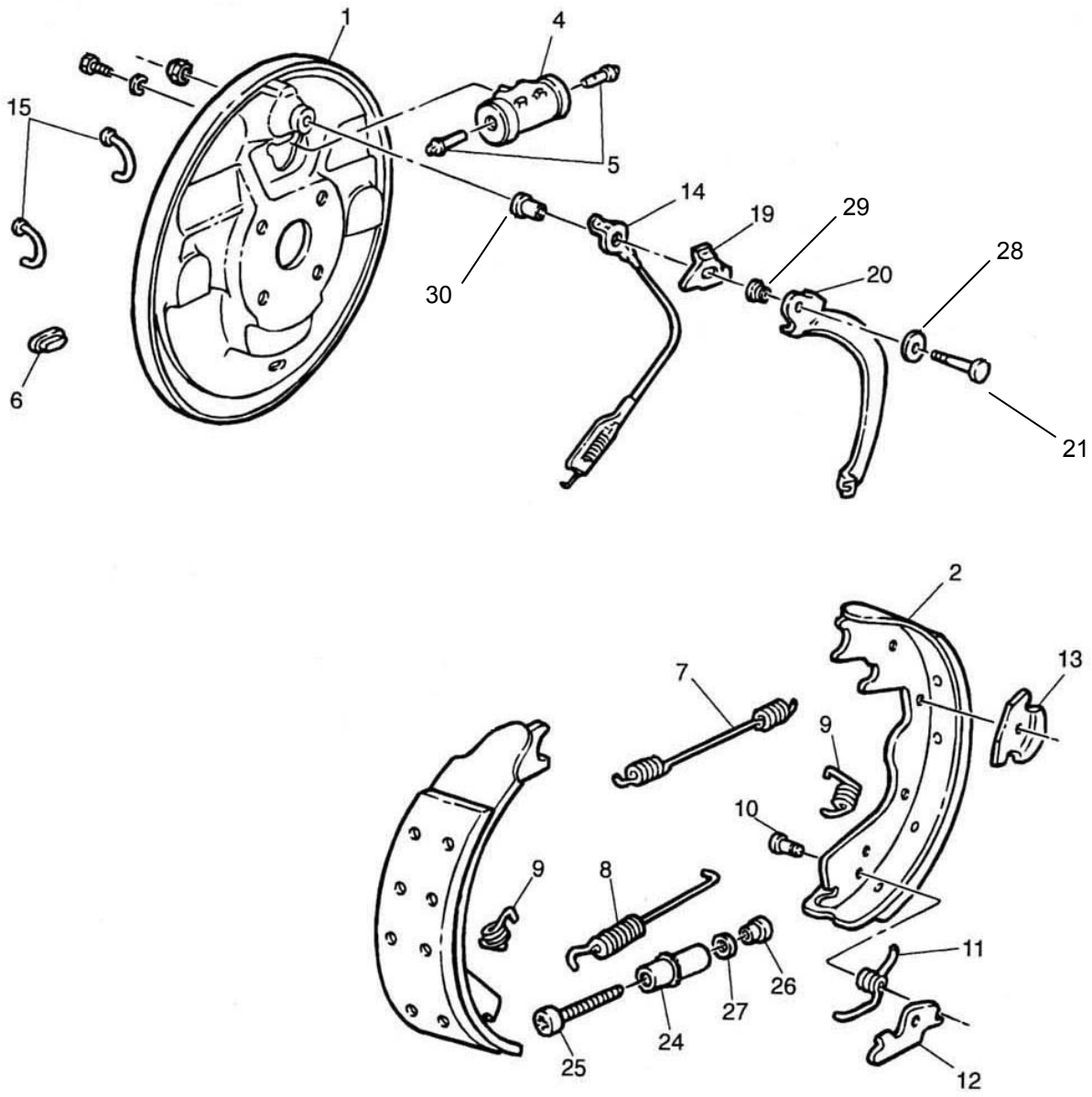
AXLES

AXLE ASSEMBLY BREAKDOWN—REAR DRIVE—DETAIL

Item	Part Number	Qty	Description
	A-TT4-00361	1	COMPLETE AXLE ASSEMBLY
2	706033-10X	KIT	DRIVE GEAR & PINION
3	706046X	KIT	INNER PINION BEARING
4	706672X	KIT	SHIM-DRIVE PINION ADJUSTING
5	30765	1	BAFFLE-PINION BEARING
6	706672X	KIT	SHIM-PINION BEARING ADJUSTING
7	706045X	KIT	OUTER PINION BEARING
8	30273	1	SLINGER-PINION BEARING
9	38427	1	SEAL-PINION
10	345731X	1	END YOKE ASSEMBLY
11	30275	1	WASHER-PINION NUT
12	30271	1	NUT-PINION
14	73597	1	COVER ASSEMBLY
15	82180		RTV SEALANT
15a	39697	1	AXLE GASKET
16	98785	1	PLUG-PIPE SLOTTED
17	34822	10	SCREW-FLANGE HD
18	N/A	1	CAP DIFFERENTIAL BEARING
19	48632-1	2	1/2-13 x 2.25 GRD8 BOLT BEARING CAP
20	706047X	KIT	BEARING
21	706673X	KIT	SHIM-DIFFERENTIAL BEARING
22	706669X	KIT	CASE-DIFFERENTIAL
23	30266	10	BOLT-DRIVE GEAR
24	SEE KIT	KIT	PINION-DIFFERENTIAL
25	SEE KIT	KIT	GEAR-DIFFERENTIAL
26	SEE KIT	KIT	THRUST WASHER-PINION
27	SEE KIT	KIT	THRUST WASHER-GEAR
28	SEE KIT	KIT	SHAFT-DIFFERENTIAL
29	500598-21	1	LOCK-DIFFERENTIAL
30	36253	8	BOLT-BRAKE MANUFACTURING
31	36805	8	NUT-BRAKE MANUFACTURING
32	36240	2	SEAL-OIL
33	706071X	KIT	INNER WHEEL BEARING
34	706072X	KIT	OUTER WHEEL BEARING
35	36241	2	HUB & DRUM ASSEMBLY
36	36847	8	STUD-HUB
37	30636	4	NUT-SPINDLE
38	30637	2	LOCK WASHER WHEEL BEARING
39	34887-7	1	SHAFT-AXLE FLANGE LONG
	34887-10	1	SHAFT-AXLE FLANGE SHORT
40	31534	16	ADAPTER-STUD
41	36805	24	NUT-LOCK
	16979	1	VENT
	060WD100	1	BRAKE ASSEMBLY-SHOE TYPE-RIGHT
	060WD101	1	BRAKE ASSEMBLY-SHOE TYPE-LEFT
KIT	706671X	1	DIFFERENTIAL PARTS (STANDARD) INCLUDES 15, 21-23, 29
KIT	707084X	1	DIFFERENTIAL PARTS (LIMITED SLIP) INCLUDES 15, 21, 23, 24, 26, 28, 29, 43-48

BRAKES

DRUM BRAKE ASSEMBLY—REAR



BRAKES

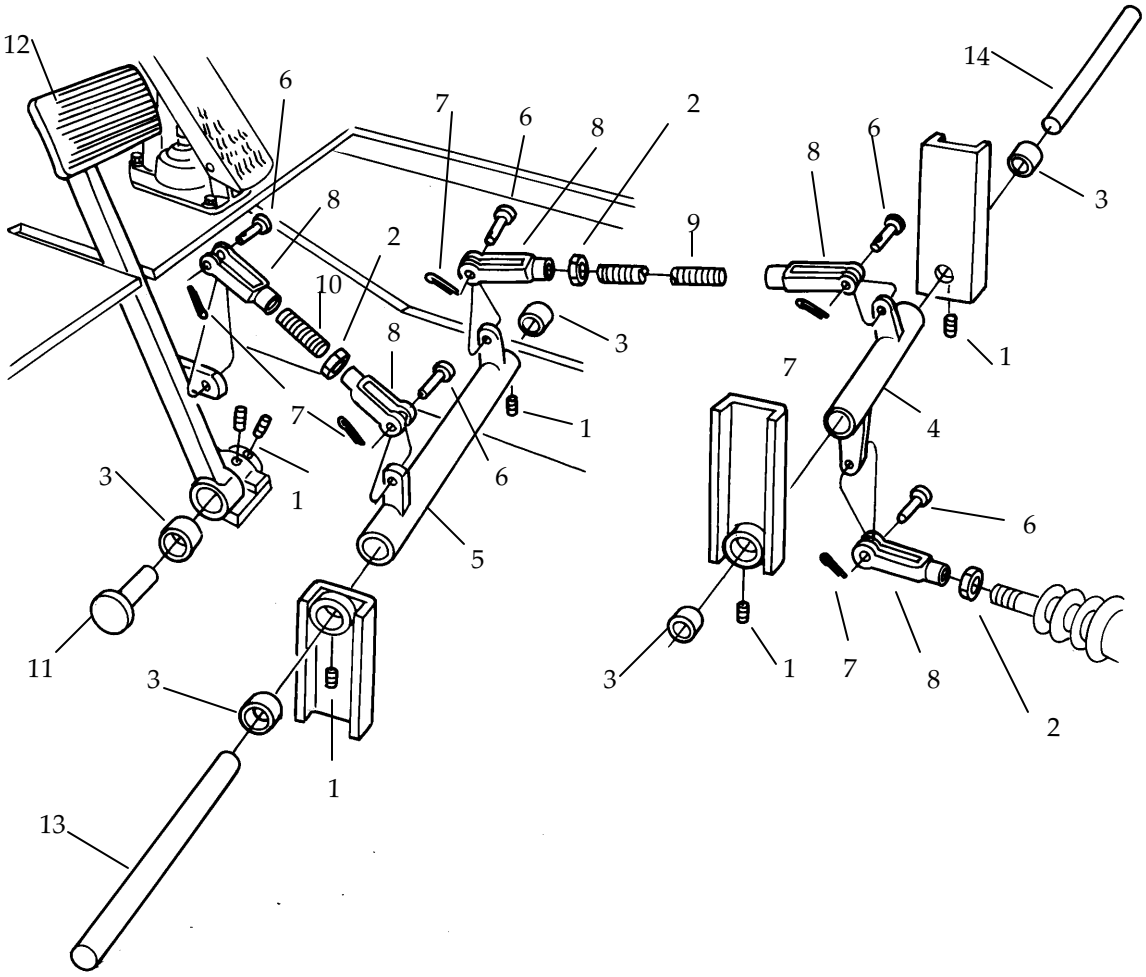
DRUM BRAKE ASSEMBLY—REAR –DETAIL

Item	Part Number	Qty	Description
	060WD101	1	BRAKE ASSEMBLY L/H
	060WD100	1	BRAKE ASSEMBLY R/H
1	4313905	1	BACKING PLATE L/H
1	4313904	1	BACKING PLATE R/H
2	FR357	1 SET	SHOE & LINING SET
4	2235585	1	CYLINDER ASSEMBLY L/H
4	2235586	1	CYLINDER ASSEMBLY R/H
5	315834	2	WHEEL CYLINDERS CONNECTING LINK
6	*SEE KIT BELOW	1	COVER
7	*SEE KIT BELOW	1	SPRING-UPPER
8	*SEE KIT BELOW	1	SPRING-LOWER
9	*SEE KIT BELOW	2	SPRING-HOLD DOWN
10	*SEE KIT BELOW	1	PIN
11	*SEE KIT BELOW	1	SPRING TENSION
12	*SEE KIT BELOW	1	BRAKE ADJUSTING LINK
13	*SEE KIT BELOW	1	CABLE GUIDE
14	*SEE KIT BELOW	1	CABLE ASSEMBLY
15	*SEE KIT BELOW	2	SPRING-HOLD DOWN
19	4383299	1	PARKING BRAKE CAM L/H
19	4383298	1	PARKING BRAKE CAM R/H
20	4383264	1	PARKING BRAKE LEVER (LEFT)
20	4383265	1	PARKING BRAKE LEVER (RIGHT)
21	4419698	1	BRAKE ANCHOR BOLT
24	*SEE KIT BELOW	1	BRAKE ADJUSTING SOCKET L/H
25	*SEE KIT BELOW	1	BRAKE ADJUSTING SCREW L/H
26	*SEE KIT BELOW	1	BRAKE ADJUSTING SOCKET
27	*SEE KIT BELOW	1	WASHER FLAT
28	3492670	1	WASHER
29	3492656	1	SPRING
30	4383600	1	SPACER
KIT	H2588	LEFT	BRAKE ADJUSTING KIT INCLUDES PART
			6,10,11,12,14,13,20,24,25,26,27
KIT	H2589	RIGHT	BRAKE ADJUSTING KIT INCLUDES PART
			6,10,11,12,14,13,20,24,25,26,27
KIT	H7146		BRAKE SPRING KIT INCLUDES PART
			7,8,9,15
*KIT PARTS NOT SOLD SEPERATELY			

This page was intentionally left blank

BRAKES

BRAKE ACTUATOR ASSEMBLY

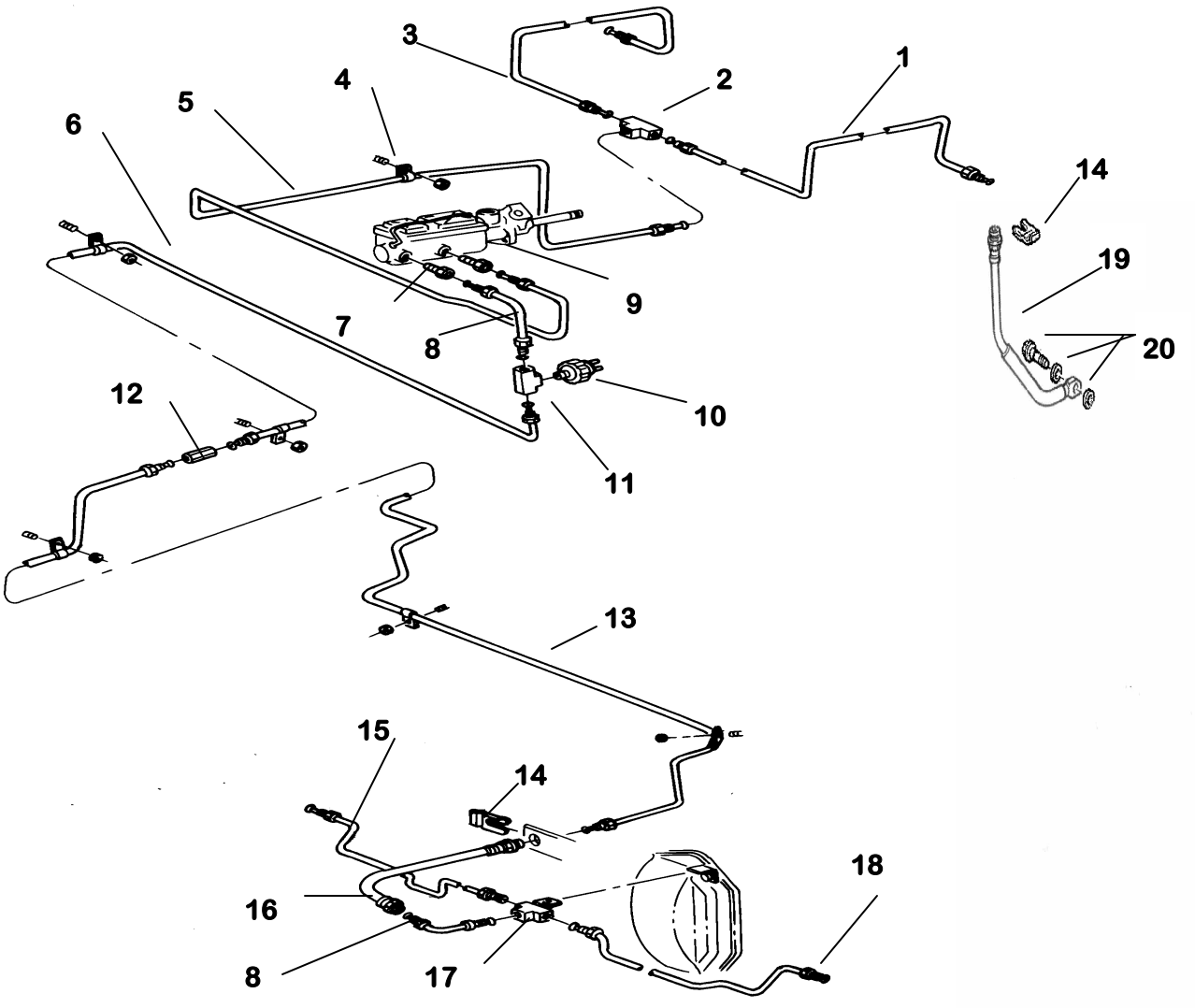


BRAKE ACTUATOR—DETAIL

Item	Part Number	Qty	Description
1	NPN	6	¼-20 SET SCREW
2	NPN	3	½-20 NUT
3	C-TT4-10188	5	THOMSON NYLINER BEARING
4	A-USAT5-50-13	1	BELL CRANK SHORT
5	A-USAT5-50-11	1	BELL CRANK LONG
6	A-TT4-00193	5	CLEVIS PIN
7	NPN	5	COTTER PIN
8	A-TT4-10192	5	CLEVIS
9	NPN	1	1/2-20 X 33 ADJUSTING ROD
10	NPN	1	1/2-20 X 3 1/2 ADJUSTING ROD
11	C-TT4-10182	1	BRAKE PEDAL PIVOT SHAFT
12	C-USAT5-10181	1	BRAKE PEDAL
13	C-TT4-10187-8.5	1	BELL CRANK PIVOT SHAFT 8.5 "
14	C-TT4-10187-13	1	BELL CRANK PIVOT SHAFT 13"

BRAKES

BRAKE SYSTEM HYDRAULIC



BRAKES

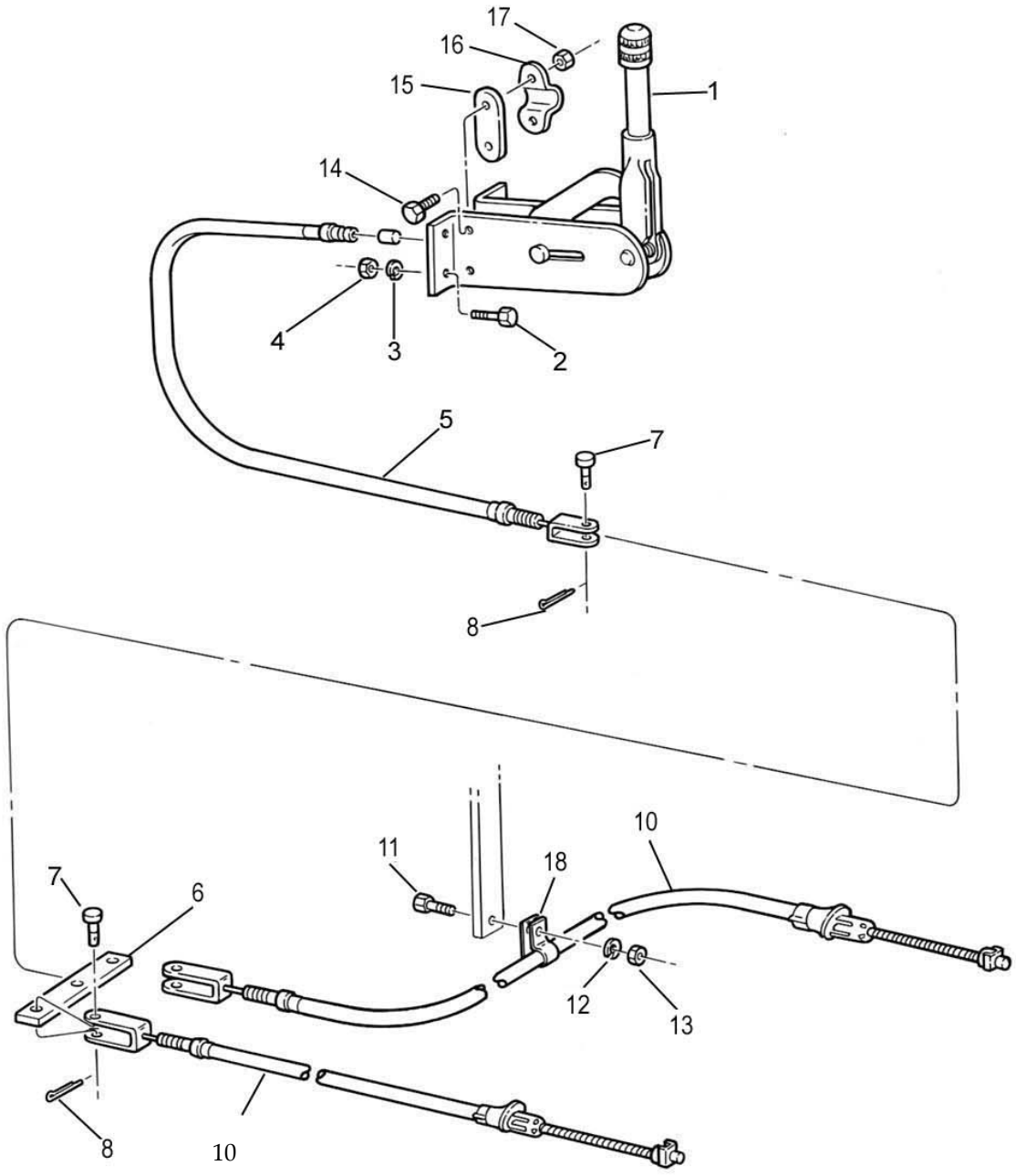
BRAKE SYSTEM HYDRAULIC

BRAKE SYSTEM HYDRAULIC—DETAIL

Item	Part Number	Qty	Description
1	A-USAT5-00175	1	BRAKE LINE FRONT RIGHT
2	A-TT4-00174	1	CROSS TEE
3	A-USAT5-00177	1	BRAKE LINE FRONT LEFT
4	NPN	6	LINE CLAMP
5	A-USAT5-00162	1	BRAKE LINE FRONT
6	A-USAT5-00171	1	BRAKE LINE FIRST REAR
7	A-TT5-00181	1	FITTING ADAPTER MASTER CYLINDER
8	A-TT4-00167	2	BRAKE LINE
9	A-TT5-00180	1	FITTING ADAPTER MASTER CYLINDER
10	A-TT4-00173	1	BRAKE LIGHT SWITCH
11	A-TT4-00163	1	BRAKE LIGHT TEE
12	NPN	1	3/16 BRAKE LINE UNION
13	A-USAT5-00164	1	BRAKE LINE SECOND HALF REAR
14	A-TT4-00165	3	BRAKE HOSE CLIP
15	A-TT4-00170	1	BRAKE LINE LEFT REAR
16	A-TT4-00166	1	BRAKE HOSE REAR
17	A-TT4-00168	1	CROSS TEE REAR
18	A-TT4-00169	1	BRAKE LINE RIGHT REAR
19	A-TT4-00176-1	2	CALIPER HOSE

BRAKES

PARKING BRAKE ACTUATOR ASSEMBLY



BRAKES

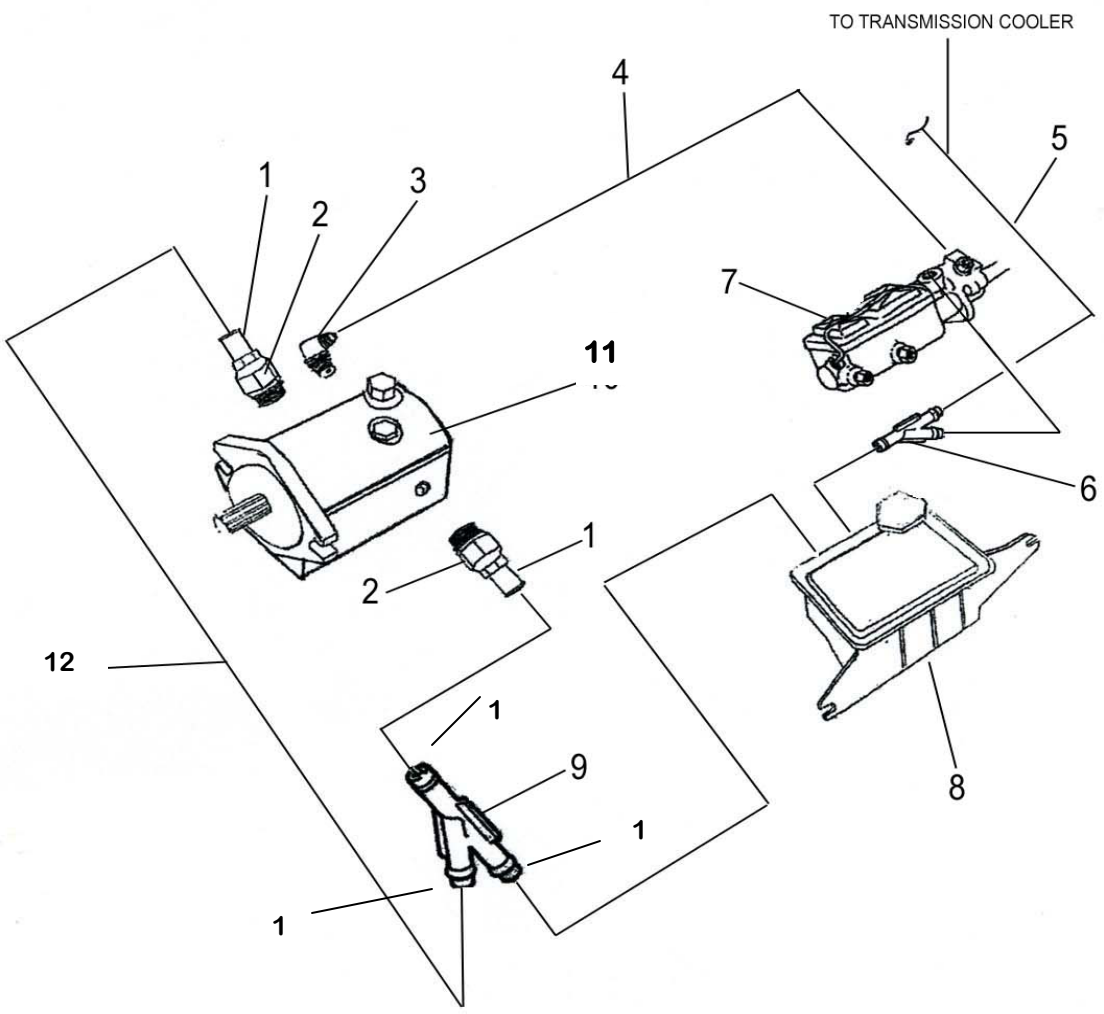
PARKING BRAKE ACTUATOR ASSEMBLY—DETAIL

Item	Part Number	Qty	Description
1	A-TT4-00141	1	HAND BRAKE
2	NPN	4	SCREW-HEX CAP-5/16-18 X 1
3	NPN	4	WASHER-FLAT-5/16
4	NPN	4	NUT-LOCK-5/16-18
5	B-TT4-00145	1	CABLE PRIMARY
6	A-TT4-00146	1	BAR EQUALIZER
7	A-TT4-00193	3	CLEVIS PIN
8	NPN	3	COTTER PIN
10	A-TT4-00150	2	PARKING BRAKE CABLE REAR LONG
11	NPN	1	SCREW-HEX CAP-14-20 X 1
12	NPN	1	WASHER-FLAT-1/4
13	NPN	1	NUT-LOCK-1/4-20
14	NPN	1	SCREW-HEX CAP-1/4-28 X 1
15	NPN	1	CABLE CLAMP PLATE
16	NPN	1	CABLE CLAMP HANDLE
17	NPN	2	NUT-LOCK-1/4-28
18	NPN	2	CABLE CLAMP

This page was intentionally left blank

HYDRAULIC ASSIST

HYDRAULIC ASSIST SYSTEM

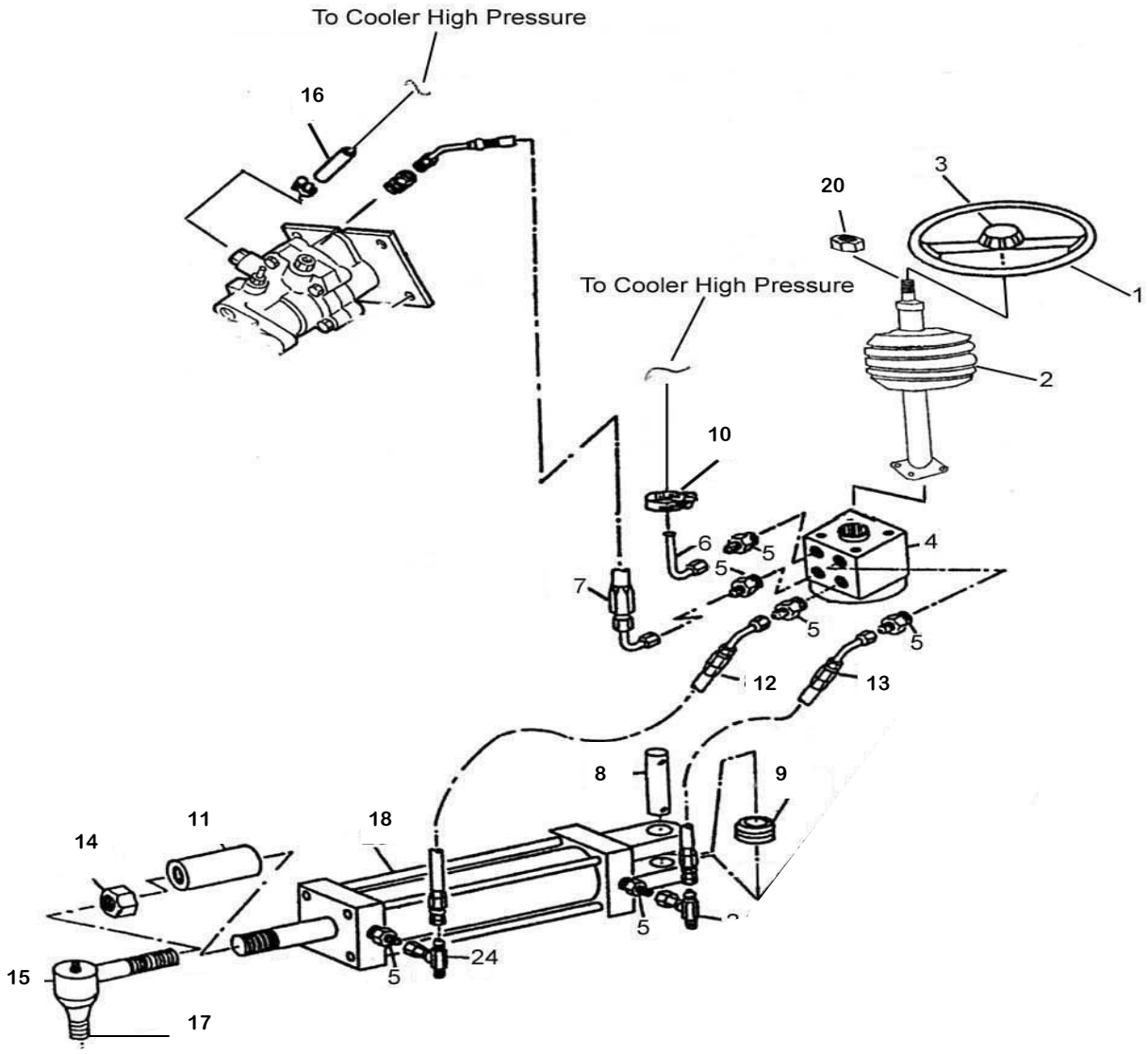


HYDRAULIC ASSIST SYSTEM—DETAIL

Item	Part Number	Qty	Description
1	05712B-108	5	NIPPLE
2	C3269X12X8	2	BUSHING
3	C5515X6	1	90 DEGREE SWIVEL FITTING
4	06U-606-56-B67	1	HOSE
5	NPN	1	CUT TO FIT, BULK HOSE - 3/8" 350 PSI
6	A-TT4-00207	1	RETURN LINE TEE
7	A-TT4-00161-1	1	MASTER CYLINDER
8	F81Z3A697AB	1	POWER STEERING RESERVOIR TANK
9	A-TT4-00606-1	1	Y FITTING (BLACK IRON)
10	A-TT4-00606-1A *COMPLETE ASSEMBLY	1	Y FITTING (BLACK MALE COUPLING)
11	SP20PB11L145H3R	1	PRINCE PUMP
12	12GMV MEGAVAC	1	CUT TO FIT, BULK HOSE 3/4" SUCTION

STEERING SYSTEM

STEERING SYSTEM BREAKDOWN



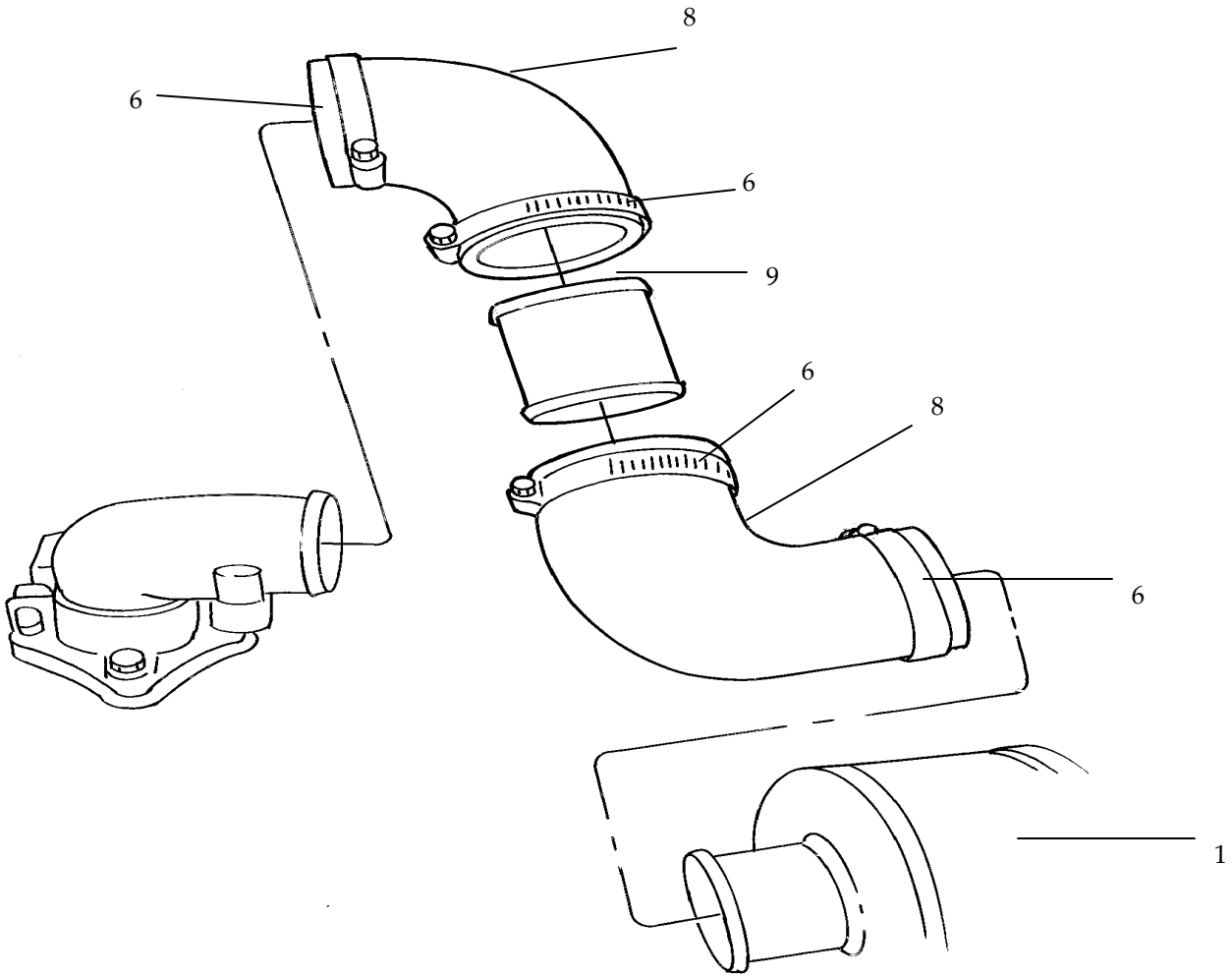
STEERING SYSTEM

STEERING SYSTEM BREAKDOWN—DETAIL

Item	Part Number	Qty	Description
1	A-TT10-00809	1	STEERING WHEEL
2	A-TT10-00807-1	1	STEERING COLUMN
3	A-TT10-00811	1	HORN BUTTON
4	A-TU-00801	1	CHARLYNN CONTROL PUMP
5	A-TT10-00831	6	FITTING - ADAPTOR
6	A-TT10-0001	1	FITTING 90 DEGREE
7	06U-606-101-366	1	LINE-MASTER CYLINDER TO STEER PUMP
8	*NPN (NOT SOLD SERPERATELY, INCLUDED WITH ITEM #18)	1	HYDRAULIC CYLINDER PIVOT PIN
9	A-TT10-00826	1	BEARING (AFTER 7/99)
10	NPN	7	HOSE CLAMP
11	A-TT10-00817	1	DRAG LINK
12	06U-666-66-606	1	LINE -STEERING LEFT TURN
13	06U-666-69-686	1	LINE-STEERING RIGHT TURN
14	A-TT10-00406	1	JAM NUT
15	A-TT10-00407	1	TIE ROD END
16	NPN	1	HIGH PRESSURE HOSE 3/8 ID 350 PSI
17	NPN	1	NUT HEX SLOTTED
18	A-TT10-00803	1	HYDRAULIC CYLINDER
19	NPN(Not Shown)	2	CLIP
20	A-TT10-00813	1	WHEEL NUT 13/16 - 20
21	06U-606-56-B67	1	LINE- ENGINE TO MASTER CYLINDER

AIR CLEANER

AIR CLEANER ASSEMBLY—DIESEL

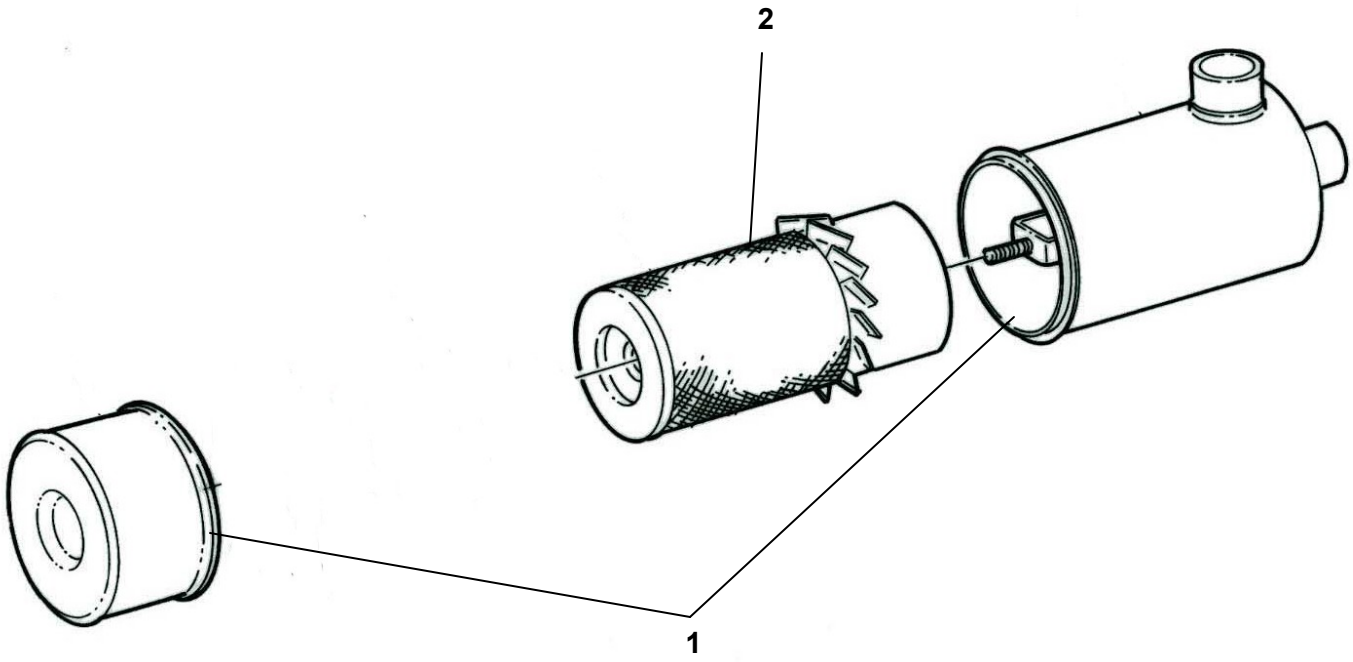


AIR CLEANER ASSEMBLY—DETAIL

Item	Part Number	Qty	Description
1	A-TT4-00091-1	1	AIR CLEANER ASSEMBLY 3"
2	A-TT4-00092	2	AIR CLEANER BRACKET (NOT SHOWN)
3	NPN	3	NUT-LOCK 3/8-16
4	NPN	3	WASHER-FLAT 3/8
5	NPN	3	SCREW-HEX CAP 3/8-16 X 1 GR.5
6	NPN	4	HOSE CLAMPS
8	A-TT4-00097-1	2	90 DEGREE ELBOW INTAKE TUBE
9	NPN	1	BULK-INTAKE TUBE - 3"

AIR CLEANER

AIR CLEANER SUB-ASSEMBLY

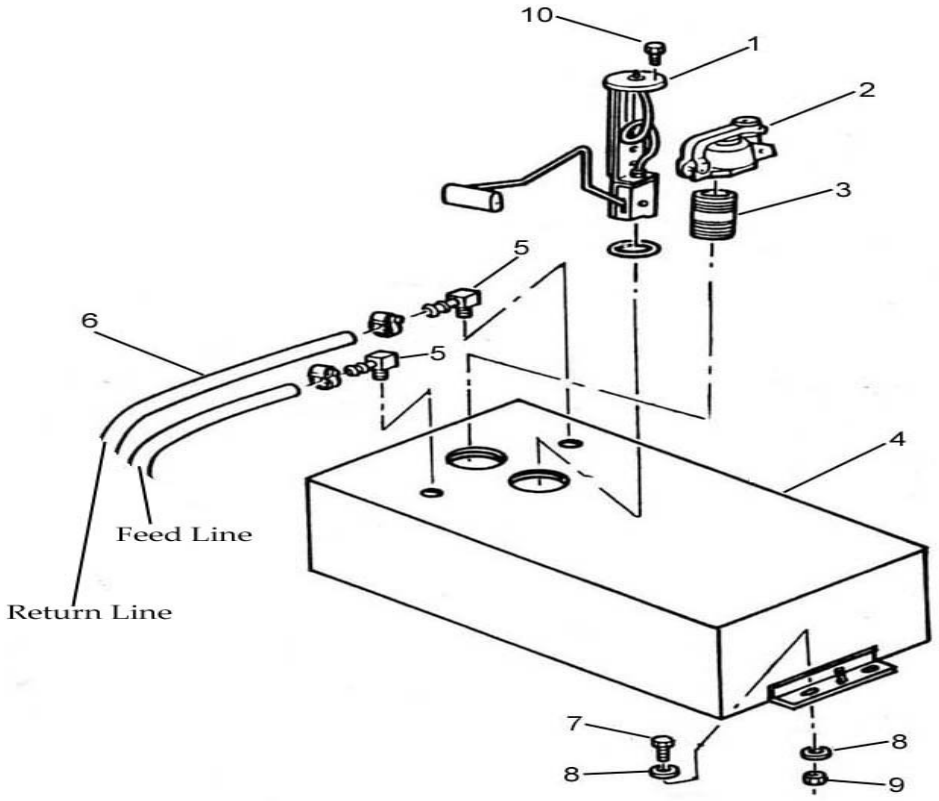


AIR CLEANER SUB-ASSEMBLY—DETAIL

Item	Part Number	Qty	Description
1	A-TT4-00091-1	1	AIR CLEANER ASSEMBLY 3"
2	P549271	1	AIR CLEANER ELEMENT

FUEL SYSTEM

FUEL SYSTEM—DIESEL

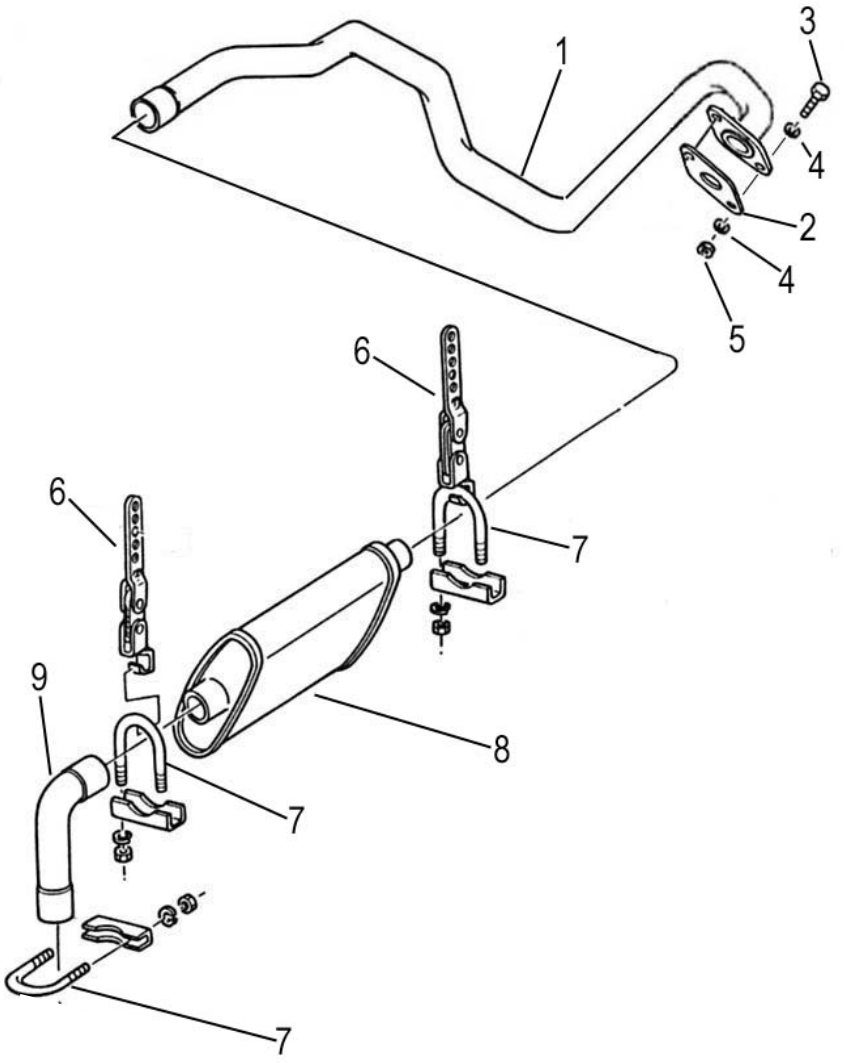


FUEL SYSTEM—DETAIL

Item	Part Number	Qty	Description
1	A-TT4-00276	1	FUEL SENDING UNIT
2	A-TT4-00271-1	1	FUEL CAP
3	A-TT4-00272	1	NIPPLE
4	A-USAT5-00273-2	1	FUEL TANK
5	A-TT4-00274	6	90 DEGREE ELBOW FITTING
6	NPN	1	BULK-5/16 FUEL LINE
7	NPN	4	3/8-16 X 1 1/4 HCS
8	NPN	6	3/8 FLAT WASHER
9	NPN	4	3/8 LOCK NUT
10	NPN	5	SCREW-HEX CAP-10-32 X3/4
11	A-TT4-00280	2	BULK HEAD FITTING (NOT SHOWN)

EXHAUST

EXHAUST SYSTEM– DIESEL

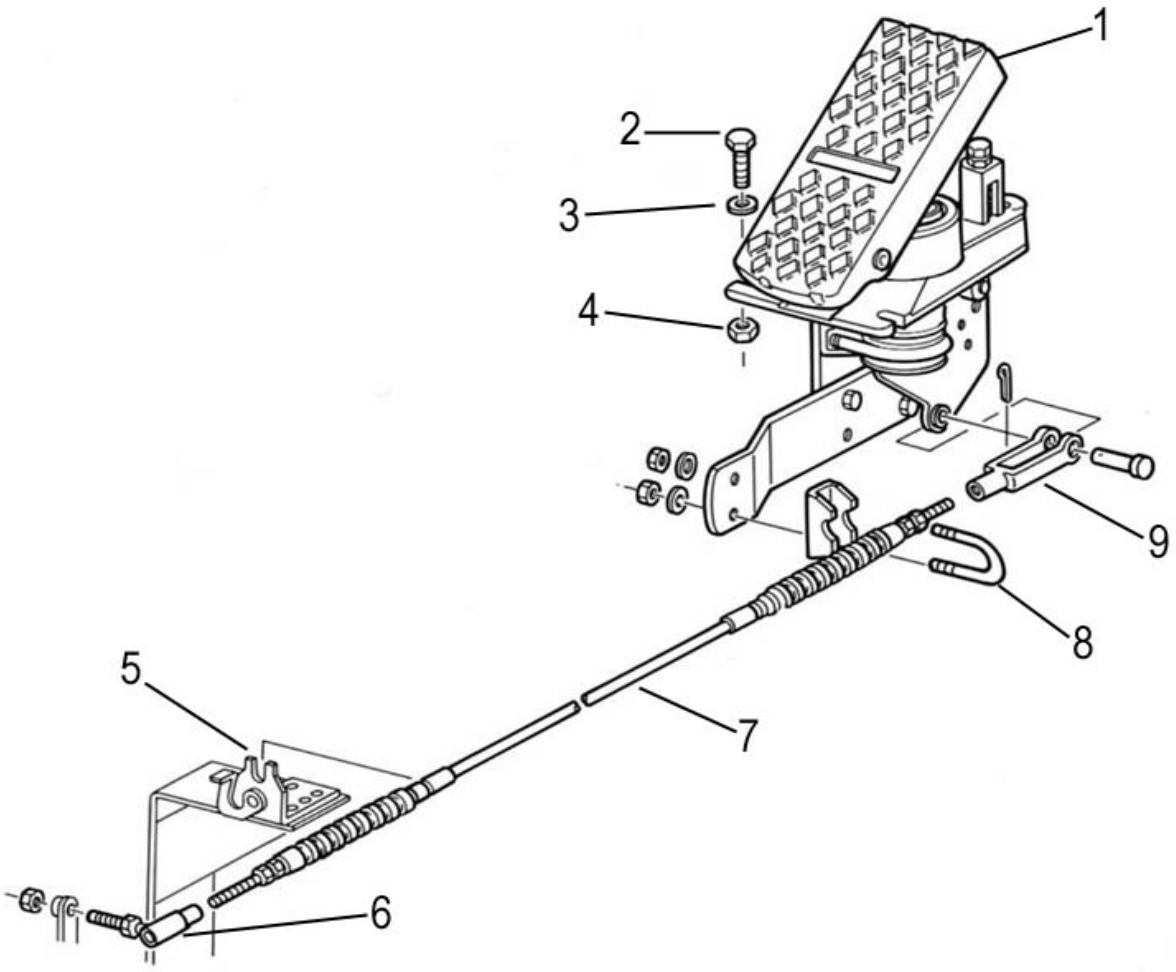


EXHAUST SYSTEM—DETAIL

Item	Part Number	Qty	Description
1	A-USAT-00253	1	DIESEL EXHAUST PIPE
2	A-TT12-00251	1	EXHAUST GASKET
3	NPN	2	SCREW-HEX-CAP 3/8-16 X 1-1/4
4	NPN	2	WASHER FLAT 3/8
5	NPN	2	NUT-HEX 3/8-10
6	A-TT4-00260	2	PIPE HANGER
7	A-TT4-00254	3	2″ MUFFLER CLAMPS
8	A-TT4-00258-1	1	MUFFLER
9	A-TT4-00259-1	2	90 DEGREE TAIL PIPE

OPERATOR COMPARTMENT

ACCELERATOR PEDAL ASSEMBLY

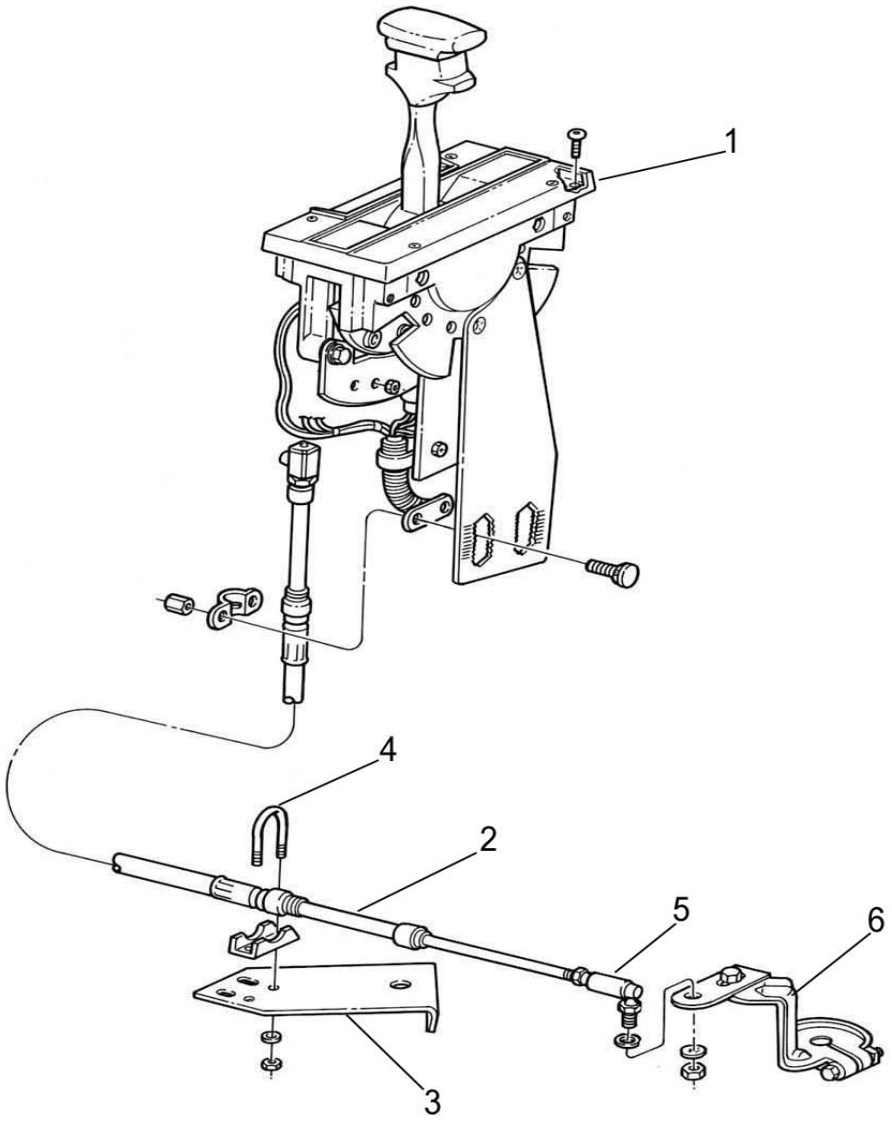


ACCELERATOR PEDAL ASSEMBLY—DETAIL

Item	Part Number	Qty	Description
1	A-TT4-00281-1	1	FOOT PEDAL ASSEMBLY
2	NPN	3	SCREW-HEX CAP-1/4-20 X 1.00 G8
3	NPN	3	WASHER-FLAT-1/4
4	NPN	3	NUT-LOCK-1/4-20
5	A-TT4-00285*	1*	CABLE CLASP*
6	A-TT4-00287	1	BALL JOINT KIT - NUT INCLUDED
7	A-USAT5-00282	1	ACCELERATOR CABLE ASSEMBLY
8	A-TT4-00247	1	ACCELERATOR U-BOLT KIT
9	A-TT4-00283-1	1	ACCELERATOR CLEVIS-PIN KIT
*CLASP MUST BE WELDED TO BRACKET			

OPERATOR COMPARTMENT

TRANSMISSION CONTROL

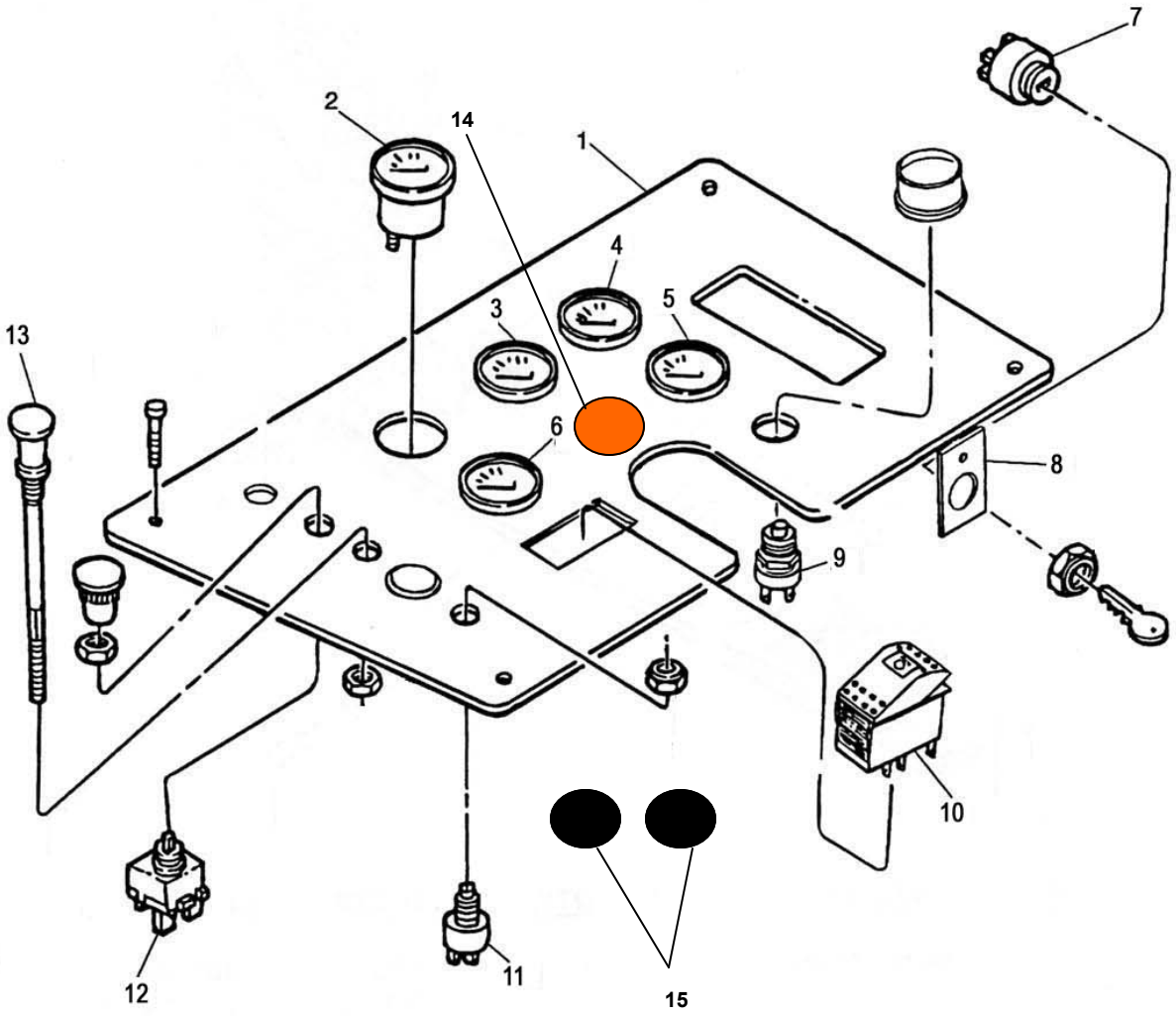


TRANSMISSION CONTROL—DETAIL

Item	Part Number	Qty	Description
1	A-TT4-00245	1	TRANSMISSION SHIFT CONTROL
2	A-USAT5-00246	1	TRANSMISSION SHIFT CABLE 120'
3	A-TT4-00248	1	TRANSMISSION CABLE BRACKET ASSEMBLY
4	A-TT4-00247	1	U-BOLT KIT
5	A-TT4-00249	1	BALL JOINT KIT
6	A-TT4-00419	1	TRANSMISSION LEVER

OPERATOR COMPARTMENT

INSTRUMENT PANEL



#15. 12V Accessory outlet found directly under

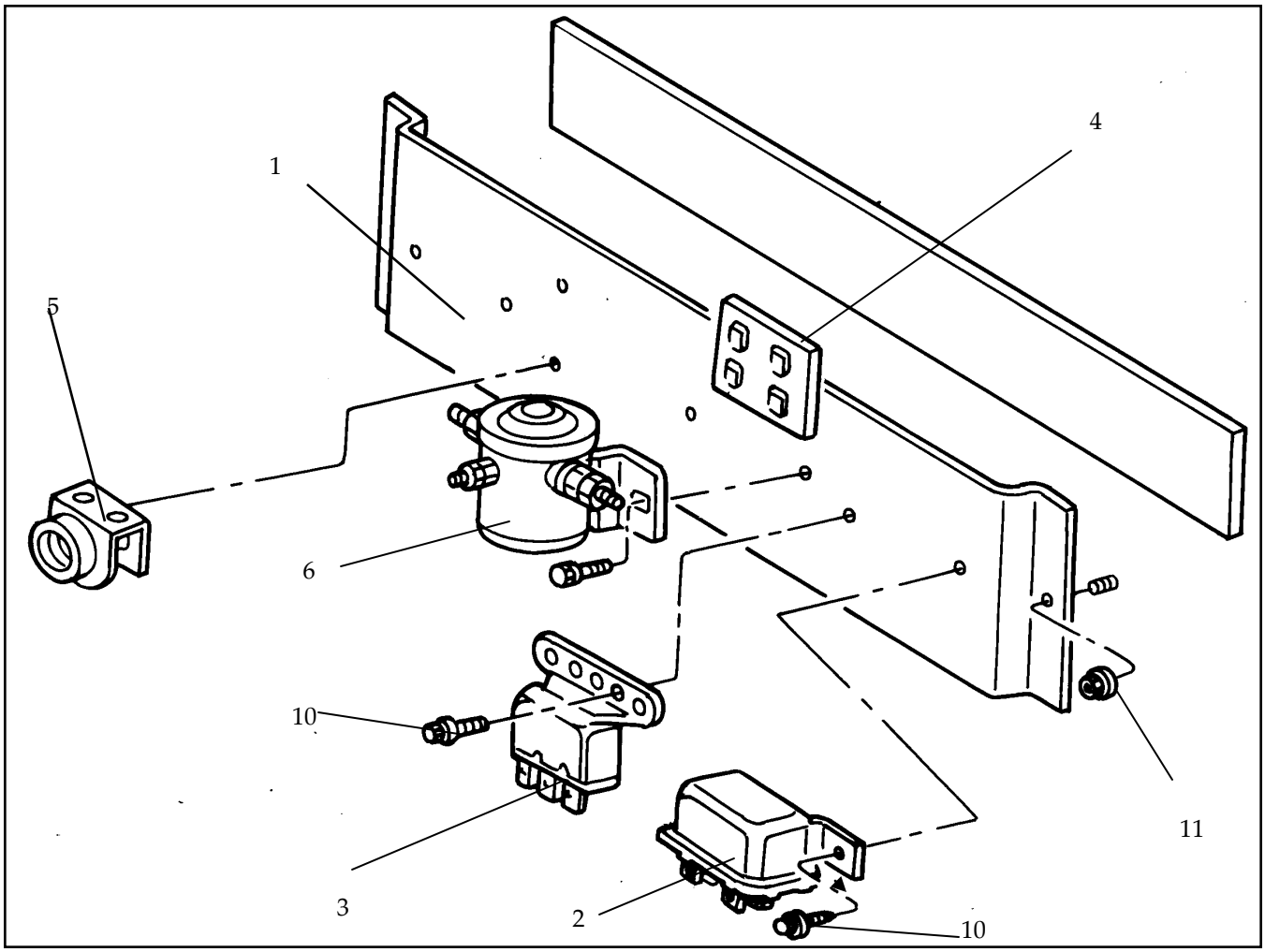
OPERATOR COMPARTMENT

INSTRUMENT PANEL—DETAIL

Item	Part Number	Qty	Description
1	C-TT4-00411	1	DASH PANEL (NO INSTRUMENTS)
2	A-TT4-00412	1	OIL PRESSURE GAUGE
3	A-TT4-00415	1	FUEL GAUGE
4	A-TT4-00416	1	VOLT-AMP GAUGE
5	A-TT4-00417	1	TEMP GAUGE
6	A-TT4-00418	1	HOUR METER
7	A-TT4-00422-2	1	IGNITION SWITCH (KEYED OPTION)
7	A-TT4-00422-3	1	IGNITION SWITCH (KEYLESS OPTION)
8	A-TT6-0015	1	PLATE, MOUNTING IGNITION SWITCH
9	TMD27M00200	1	GLOW PLUG SWITCH
10	A-TT4-00423-1	1	HEAD LIGHT SWITCH
11	A-TT4-00428	1	HORN BUTTON
12	A-TT4-00609	1	HEATER FAN SWITCH(OPTIONAL)
13	A-TT4-00608	1	TEMP CONTROL CABLE(OPTIONAL)
NS	A-TT4-00434-1	1	WIRE HARNESS (DASH ONLY)
NS	A-TT4-00435-1	1	80 AMP CIRCUIT BREAKER
14	AE-OPT-0066	1	EMERGENCY STOP(OPTIONAL)
15	AE-OPT-0094	2	12V ACCESSORY OUTLET
16	A-TT4-00306	1	WARNING LIGHT ISUZU FUEL(NOT

LIGHTS & ELECTRICAL

ELECTRICAL BOARD

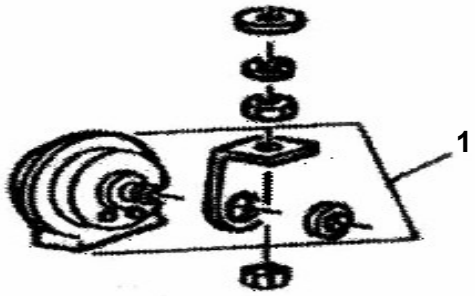


ELECTRICAL BOARD—DETAIL

Item	Part Number	Qty	Description
1	B-TT4-00301	1	MOUNTING BRACKET
2	A-TT4-00302	1	STARTER RELAY
3	A-TT4-00303-1	1	HORN RELAY
4	A-TT4-00435-1	1	FUSE (80 AMP)
5	98253-00410	1	GLOW PLUG RESISTOR
6	A-TT4-00308	1	RELAY
7	A-TT4-00299	1	FUSE BLOCK (NOT SHOWN)
8	A-TT4-00300	1	TERMINAL BLOCK (NOT SHOWN)
9	A-TT3-0010	4	25 AMP ROUND FUSE (NOT SHOWN)
10	NPN	10	SELF DRILLING SCREWS
11	NPN	2	LOCK NUT 10-32

LIGHTS & ELECTICAL

HORN ASSEMBLY



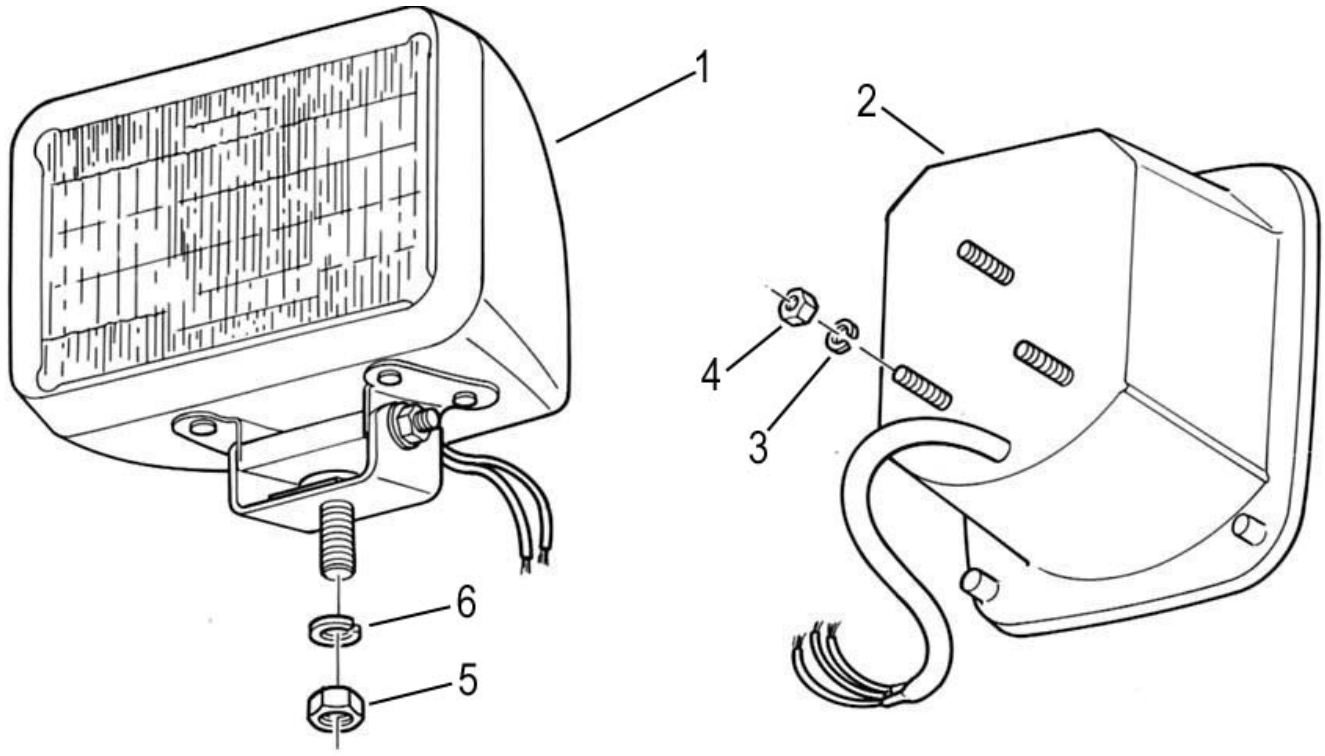
HORN—DETAIL

Item	Part Number	Qty	Description
1	A-TT4-0052	1	HORN ASSEMBLY

This page was intentionally left blank

LIGHTS & ELECTRICAL

HEADLIGHT & TAILLIGHT ASSEMBLY

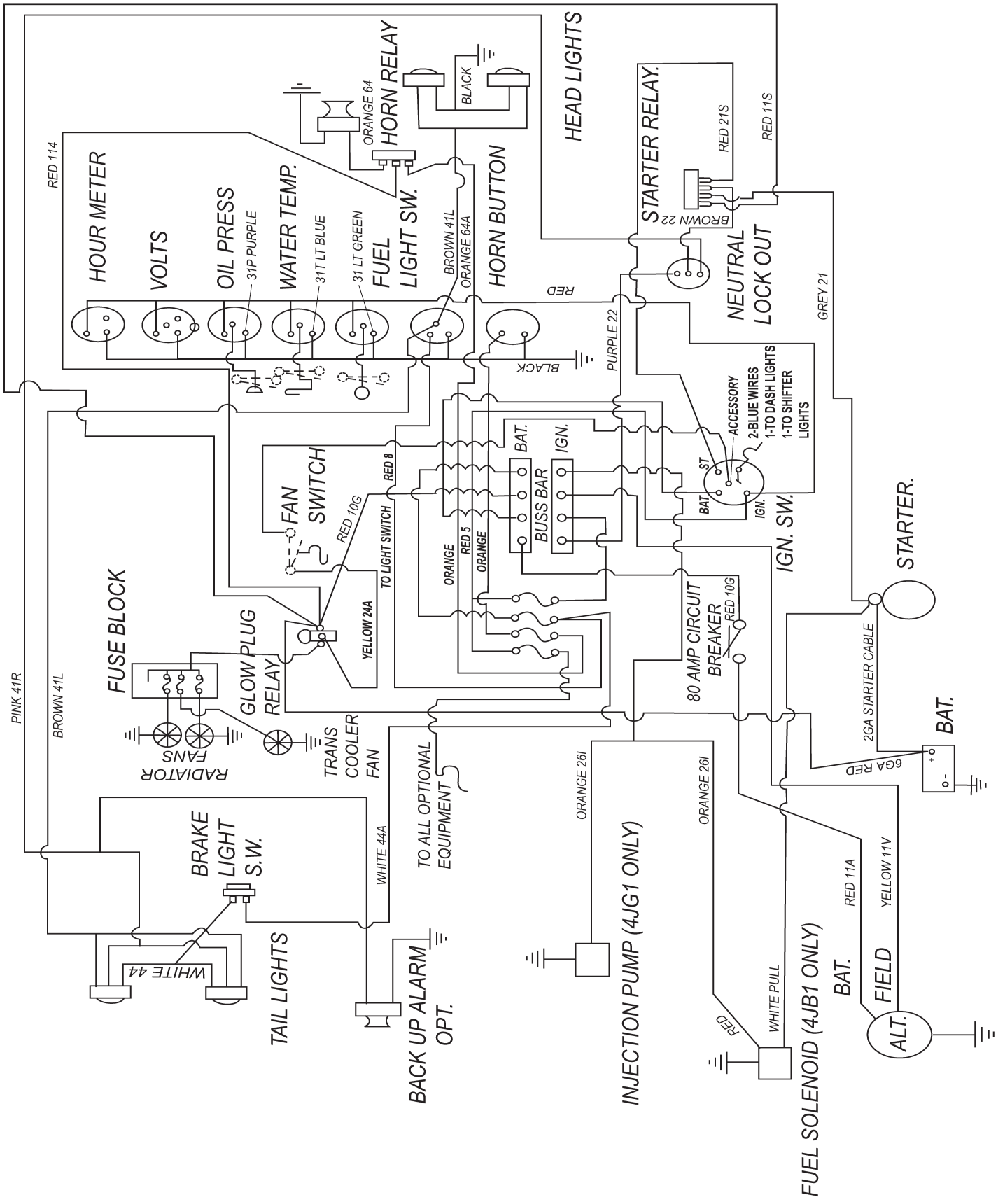


HEADLIGHT & TAILLIGHT ASSEMBLY—DETAIL

Item	Part Number	Qty	Description
1	ATT4-00291-5	2	HEADLIGHT
1a	H3	2	REPLACEMENT HEADLIGHT BULB
2	A-TT4-00292	2	TAILLIGHT
2a	1157	1	BRAKE / TAIL LAMP
2b	1156	1	BACKUP LAMP
3	NPN	2	WASHER-FLAT-1/2
4	NPN	6	WASHER-FLAT-1/4
5	NPN	2	NUT-1/2-13
6	NPN	6	NUT-1/4-20

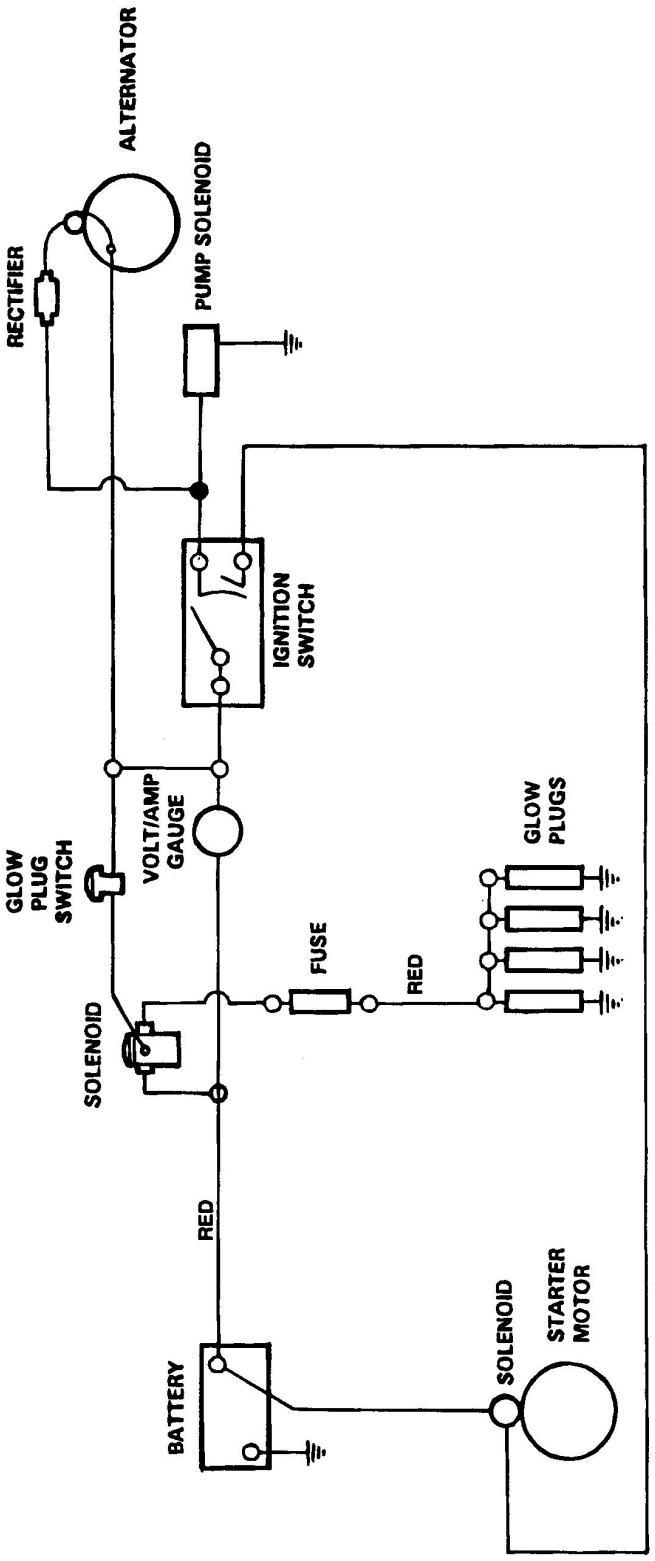
LIGHTS & ELECTRICAL

WIRING HARNESS



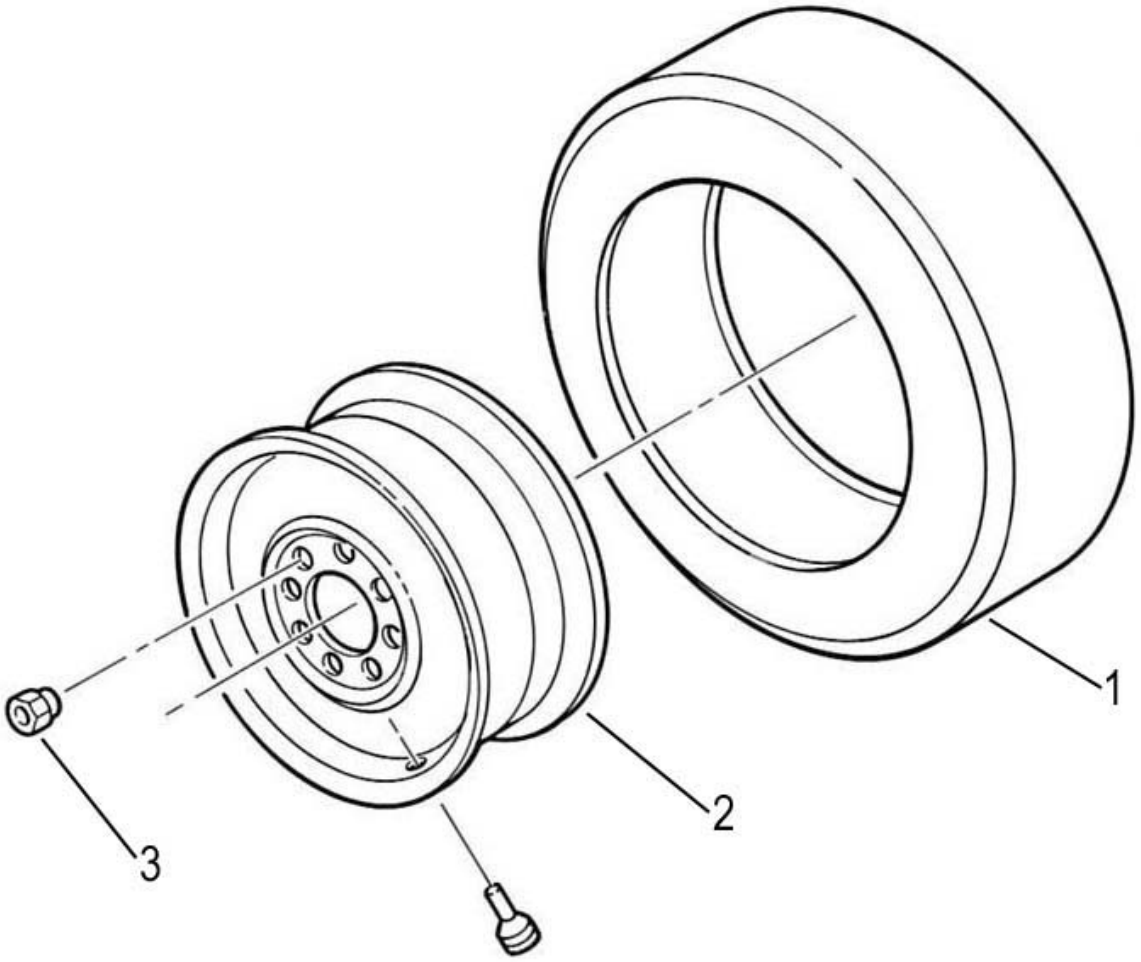
LIGHTS & ELECTRICAL

WIRING SCHEMATIC



WHEELS & TIRES

WHEEL & TIRE ASSEMBLY



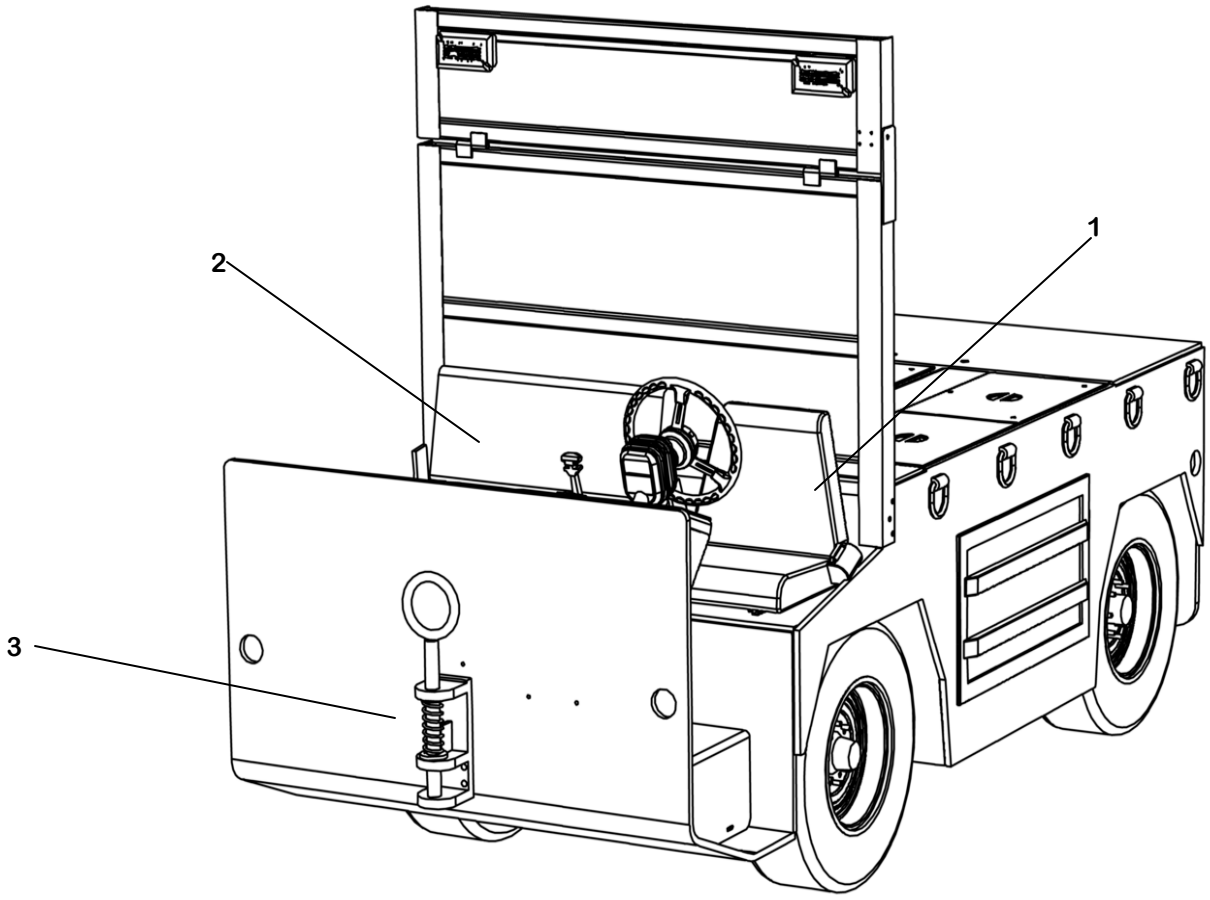
WHEEL & TIRE ASSEMBLY—DETAIL

Item	Part Number	Qty	Description
1	A-TT8/2-00121-1	4	TIRE 16"
2	A-TT4-00122-1	4	RIM 16"
3	A-TT4-00123	32	LUG NUT
*	AE-OPT-0068	4	SNOW TIRE (OPTION)

* All current models now equipped with standard 16″ tire & rim

OTHER ASSEMBLY

BODY ASSEMBLY

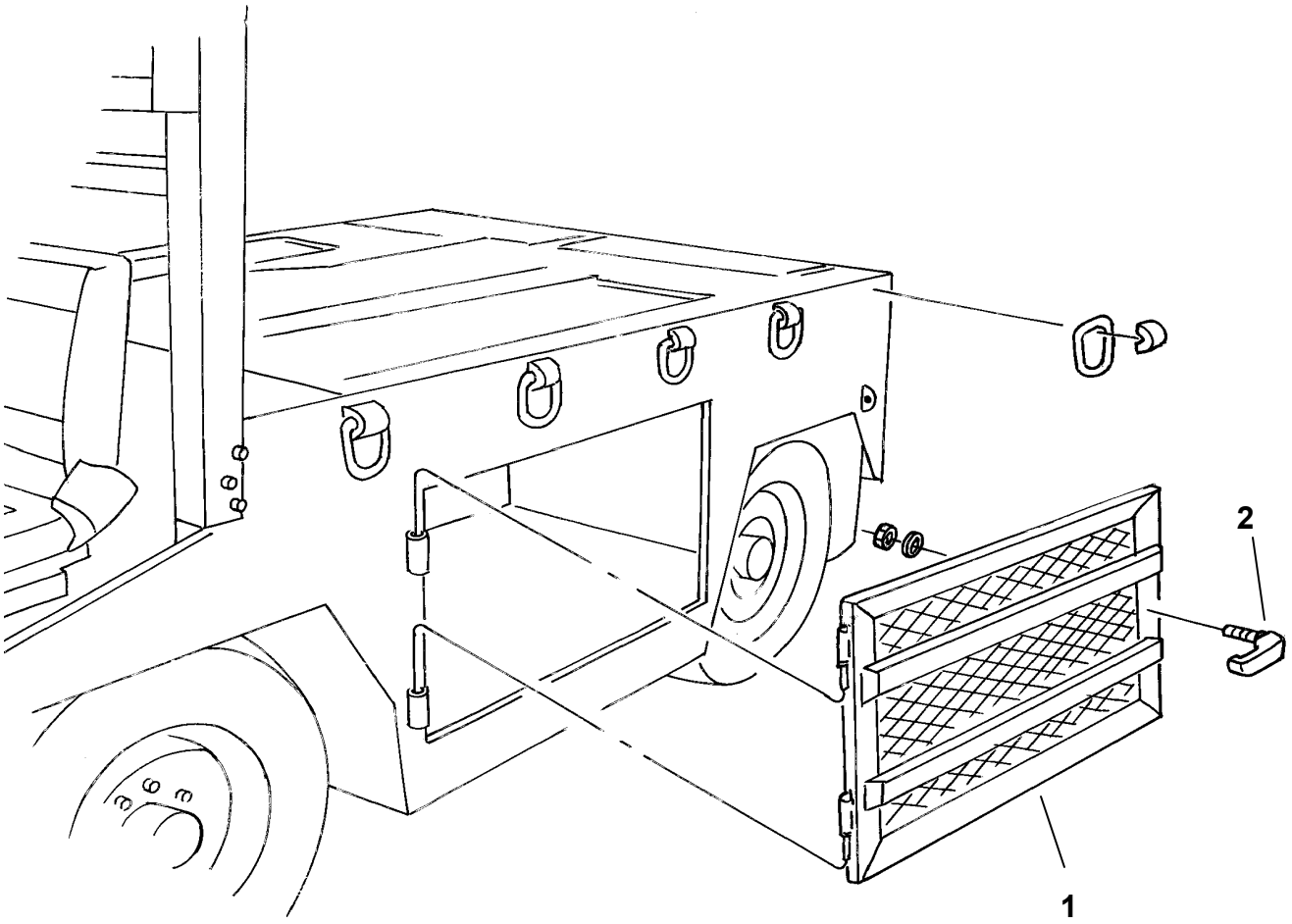


BODY ASSEMBLY—DETAIL

Item	Part Number	Qty	Description
1	A-TT4-0048-1	1	SINGLE SEAT
2	A-TT10-00048	1	BENCH SEAT
3	AE-OPT-0033	1	E-HITCH (OPTION)

OTHER ASSEMBLY

BODY ASSEMBLY

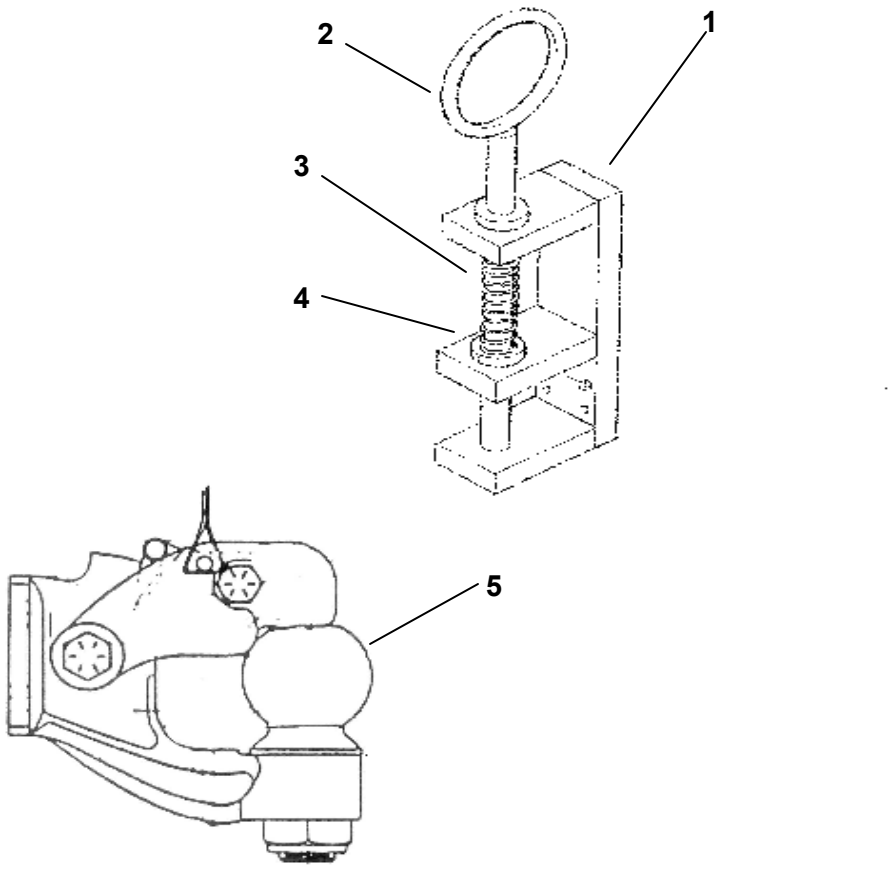


BODY ASSEMBLY—DETAIL

Item	Part Number	Qty	Description
1	D-TT4-0009-1	2	SIDE ACCESS DOOR
2	62-10-603-20	2	LATCH SIDE ACCESS DOOR

OTHER ASSEMBLY

HITCH OPTIONS



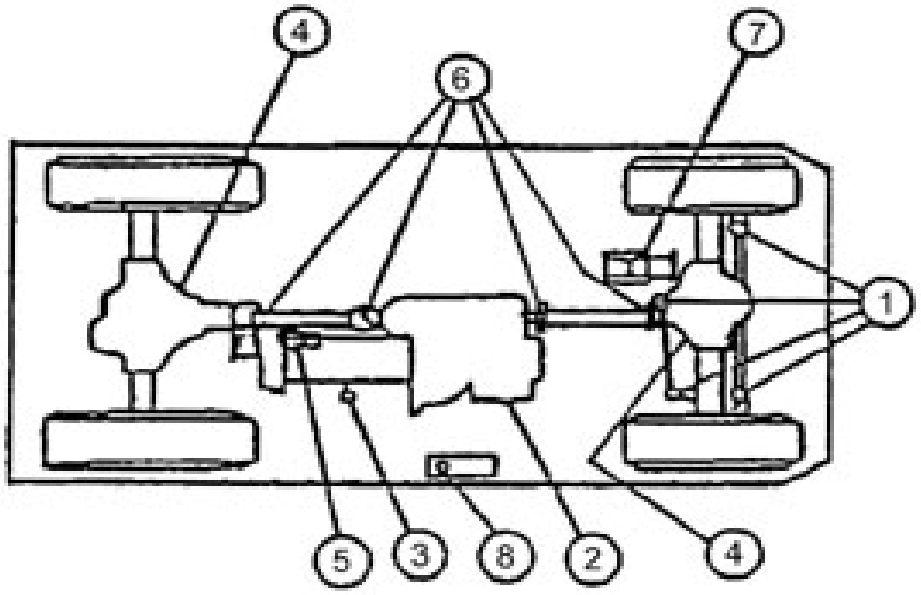
HITCH OPTION—DETAIL

Item	Part Number	Qty	Description
1	AE-OPT-0033	1	E-HITCH 1 1/2 " PIN-COMPLETE ASSEMBLY
2	B-TT3-0008 DET2	1	E-HITCH GUIDE 1 1/2" GUIDE PIN WITH RING
3	B-TT3-0008A	1	E-HITCH SPRING
4	B-TT3-0008 DET5	1	LOCKING COLLAR
5	AE-OPT-0028	1	PINTLE HOOK

* The above are standard hitch options. Please call for special hitch options information

USATS DIESEL MAINTENANCE

LUBRICATION CHART



Item	Identification	Type Service	Lubricant
1	Steering Linkage	Lube	EP Multipurpose Grease
2	Transmission Oil*	Check	Dextron III
3	Engine Oil	Change	OE/HDO (MIL-L-2104)
4	Drive Axles	Check	GO 80-90 (MIL-L-2105)
5	Power Steering Pump	Check	Power Steering Fluid
6	Drive Shaft	Lube	EP Multipurpose Grease
7	Brake Master Cylinder	Check	Dot 3
8	Engine Coolant	Check	MIL-A-46153 (Ethylene Glycol)
*Check when engine is at operating temperature			

USATS DIESEL MAINTENANCE

PREVENTATIVE MAINTENANCE SCHEDULE

NO	Description of Check/Service	Operational Hours							
	X-Check * - Requires Service	Daily	50	100	250	500	750	1000	1500
1	Engine Oil and filter ***first 50 and every 100 hours thereafter**	x	*	*					
2	Transmission Fluid ***every 500 hours**	x				*		*	
3	Power Steering Fluid	x							
4	Brake Fluid	x							
5	Coolant Level	x							
6	Fuel Filter ***every 500 hours**					*		*	
7	Drain Water/Fuel Filter ***every 250 hours**				*	*	*	*	
8	Lubricity Filter ***every 250 hours**				*	*	*	*	
9	Oil Leak Check	x							
10	Engine Rubber Mounts		x	x	x	x	x	x	
11	Inlet & Exhaust Pipes to Manifold		x	x	x	x	x	x	
12	Throttle Controls		x	x	x	x	x	x	
13	Coolant Hoses		x	x	x	x	x	x	
14	Belt Drives		x	x	x	x	x	x	
15	Fuel System Leak Check		x	x	x	x	x	x	
16	Electrical Wires and Connections		x	x	x	x	x	x	
17	Suspension U-Bolts		*						
18	Battery Cables			x					
19	Air Cleaner Element ***every 250 hours**				*	*	*	*	
20	Brake Pads (Front)					x		x	
21	Drum Brake Lining (Rear)					x		x	
22	Brake Lines and Hoses					x		x	
23	Flush Cooling System					*			
24	Clean Feed Pump Strainer								*
25	Check Injection Nozzles					x		x	x
26	Cylinder Compression Pressure							x	
27	Valve Clearance Check							x	
28	Position Crankcase Ventilation Valve Cleaning								x
29	Rotate Tires ***every 500 hours**					*		*	

DAILY OPERATOR RESPONSIBILITIES

Proper Fluid Checks

Engine Oil

Check engine oil with the unit on a level surface, the key in the "OFF" position, the shifter position in "PARK" and parking brake applied. Open side access door. Remove dipstick from crankcase, wipe it with a cloth. Insert it fully and take out it gently again. Check the oil level by the marks on the dipstick. The oil level must be between the "Max" level and the "Min" level. DO NOT OVERFILL! SEE PAGES 12 & 13 FOR SAFETY BULLETIN!

Coolant

DO NOT remove recovery tank cap or check coolant level while engine is hot! With engine cool, the key in the "OFF" position, the shifter position in "PARK" and the parking brake applied, open hood, set hood prop and look at left side of recovery tank. The reservoir tank is translucent, so the fluid is readily visible without removing the cap. Fluid level should be at the "Cold fill level".

Transmission Fluid

With unit in park and parking brake set in the "ON" position, start engine. Open side access door. Remove dipstick from transmission case, wipe it with a cloth. Insert it fully and take it out gently again. Check the fluid level by the marks on the dipstick. The transmission fluid level must be between the "Max" level and the "Min" level on the dipstick. DO NOT OVERFILL.

Brake Fluid

Check brake fluid with the unit on a level surface, the key in the "OFF" position, the shifter position in "PARK" and parking brake applied. Open hood, set hood prop and locate master cylinder reservoir. Remove spring clips and take off lid. Brake fluid level should be at the top of reservoir.

Power Steering Fluid

Check power steering fluid with key in "OFF" position, the shifter position in "PARK" and the parking brake applied. Open hood, set hood prop remove cap from power steering reservoir. Fluid level should be between the arrows on the indicator stick. DO NOT OVERFILL.

Recommended Filters:

Engine oil	Isuzu 8-94430-983-1	Fuel Filter	Isuzu 897213-4720
	Carquest 85390		Carquest 86128
	Fleetgard LF3528		Wix 33128
Air Cleaner	Donaldson P549271	Transmission	Wix 58705
Lubricity Filter	Fleetgard FS20000		

USATS DIESEL MAINTENANCE

SPECIFICATIONS & CAPACITIES

MODEL #	ISUZU 4JG1
DESCRIPTION:	Standard diesel, 2.8 Liter, Isuzu four cylinder, direct injection engine

# OF CYLINDERS	4 IN-LINE, 4 CYCLE
BORE & STROKE INCHES (mm)	3.66 X 4.01 (93 X 102)
DISPLACEMENT, CUBIC INCHES (L)	171 (2.8)
COMPRESSION RATIO	18.60
FUEL	No 2 DIESEL
ALTERNATOR	50 AMP, 12 VOLT, NEG GROUND
ENGINE WEIGHT FULLY DRESSED LB (KG) (PROX)	557 (253)

ENGINE CRANKCASE CAPACITIES

ENGINE	U.S. QUARTS	IMPERIAL QUARTS	LITRES
2.8 L (171 CID) DIESEL***	10.00	8.33	9.46
**10W30(5W20 ARCTIC)			
***15W40CD IN CONTINENTAL U.S.			

FUEL TANK REFILL CAPACITIES

U.S. GALLONS	IMPERIAL GALLONS	LITERS
16.0	13.3	60.6

SAE (SOCIETY OF AUTOMOTIVE ENGINEERS) NO. 2-D

JIS (JAPANESE INDUSTRIAL STANDARD) NO 2

DIN (DEUTSCHE INDUSTRIE NORMEN) 51601

BS (BRITISH STANDARD) CLASS A-1

*Please refer to Isuzu Engine Instruction Manual IDE– 6053 for further information

USATS DIESEL MAINTENANCE

SPECIFICATIONS & CAPACITIES

TRANSMISSION REFILL CAPACITIES

ENGINE	U.S. PINTS	IMPERIAL PINTS	LITRES
2.8 L (171 CID) DIESEL	8.00	6.60	3.80
* USE DEXTRON III TYPE TRANSMISSION FLUID OR EQUIVALENT			
**ADD 9 PINTS, 7.5 IMPERIAL PINTS OR 4.25 LITERS IF TORQUE CONVERTOR HAS BEEN DRAINED			

ENGINE COOLING SYSTEM REFILL CAPACITIES

ENGINE	U.S. QUARTS	IMPERIAL QUARTS	LITRES
2.8 L (171 CID) DIESEL	16.00	13.30	15.10
* A 50/50 MIXTURE OF GLYCOL AND CLEAN WATER			

BRAKE SYSTEM

The brake system is power assisted hydraulic, front disc type and rear drum type. USE DOT 3 BRAKE FLUID.

STEERING SYSTEM

The steering system is power assisted hydrostatic type. USE TEXACO FLUID PART NO. 11872 OR EQUIVALENT.

AXLE REFILL CAPACITIES

AXLE	U.S. PINTS	IMPERIAL PINTS	LITRES
FRONT STEER – NON DRIVE	N/A	N/A	N/A
FRONT DRIVE AXLE	5.20	4.37	2.48
REAR DRIVE AXLE	8.50	7.00	3.75
* SERVICE REFILL CAPACITIES ARE DETERMINED BY FILLING TO THE BOTTOM OF THE FILLER HOLE			
**USE 80W90 HYPOID GEAR LUBRICANT			

REVISION LOG

Rev	Date	Description	Appr.
3	18-Nov-2013	Removed warranty statement	SEB

This page was intentionally left blank